



Borough & Port of Lowestoft.

THE
Annual Reports
OF THE
Medical Officer of Health
FOR
1905.

Lowestoft:
MCGREGOR & FRASER,
THE HIGH STREET PRINTING WORKS.

Sanitary Committee.

MR. COUNCILLOR E. TUTTLE *Mayor.*

MR. ALDERMAN J. BECKETT, *Chairman.*

ALDERMEN :

A. ADAMS
W. MOBBS

A. STEBBINGS

COUNCILLORS :

H. R. BOARDLEY
W. BERRY
B. S. BRADBEER
W. H. CADGE
A. B. CAPPS
H. H. COPEMAN

C. Y. FRY
J. HARROLD
J. JACKMAN
J. SMITH
E. TUTTLE
A. J. TURNER

H. B. WALKER

Isolation Hospital Sub-Committee.

THE MAYOR
Chairman.

Alderman :
W. MOBBS

Councillors :
W. BERRY
W. CADGE
J. SMITH

Statistical Summary.

Area of the Borough	...	...	(acres)	2,306
Estimated Population	...	...	...	33,123
Rateable Value	...	...	...	£140,350
Birth Rate	...	...	...	28·2
Gross Death Rate	...	...	...	11·8
Rate of Infantile Mortality (per 1,000 births)				112
Zymotic Deaths Rate	...	...	...	~~2·99~~ 1·02
Mean Temperature	...	...	...	48·4
Rain Fall	...	...	(inches)	21·35

*To the Mayor, Aldermen and Councillors of
the Borough of Lowestoft.*

GENTLEMEN,

I have the honour to present to you the Annual Statistical Report for the Year 1905.

The Population as enumerated at the Census taken on the night of 31st March, 1891, was 23,490. The enumeration at the Census of 1901 gave a Population of 29,850. The population estimated to the middle of 1905, was 33,123.

The year is a record one, especially with regard to the Death Rate; the gross rate, which is more near the correct one, being 11·8, than the nett one, which is 12·0 per 1,000 per annum of the population.

Special interest is therefore attached to the tabulated Death Rates under the heading of General Mortality Statistics.

Attention is also called to the small number of deaths from Zymotic Enteritis. Also to the new table, No. 5, at the end of the Report, relating to the Infantile Mortality.

There has been a death from Anthrax in a bullock.

In the Port Report it will be noticed that the Cholera Regulations were put into force during the epidemic on the Continent.

I am, as usual, indebted to Mr. Edwards, F.M.R.S., for his assistance in the compilation of this Report.

On the Marriage and Birth Rates.

Two hundred and seventy-seven *marriages* have been registered as having occurred within the borough. This is equivalent to a gross *marriage rate of 16·7 per 1000 per annum*. It is interesting to note that in the previous year the number of marriages was 274, and the year before that 237.

The total number of *births* registered was 934, which is equivalent to a *birth rate of 28·2 per 1000 per annum*, as against 29·8 for 1904.

The accompanying table shews the quarterly distribution of births as to rate, sex and legitimacy:—

Period.		Legitimate.		Illegitimate.		Total Births.	Rate per 1,000
		Male.	Female.	Male.	Female.		
1st Quarter	...	114	112	3	4	233	28·2
2nd	„	108	113	2	8	231	27·9
3rd	„	101	121	6	5	233	28·2
4th	„	131	97	3	6	237	28·6
		—	—	—	—	—	—
Totals	...	454	443	14	23	934	28·2

Over four per cent. of the births were illegitimate.

General Mortality Statistics.

Three hundred and ninety-four deaths were registered. The *gross annual rate of mortality per thousand of the estimated population* is 11·8. By excluding seventeen deaths which occurred among “non-residents” *i.e.*, among “persons brought into the district on account of sickness or infirmity, and dying in public institutions”; and again by including 22 deaths in Oulton Workhouse, we obtain a corrected total of 399 and a *corrected death rate of 12·0 per 1000 per annum*.

Of 146 deaths which occurred under the age of five years, 8 were due to Zymotic Enteritis, 15 to Whooping Cough, and 3 to Measles: 105 of these 146 deaths were in infants under one year, the rate of *Infantile Mortality* being 112 per 1000 births. The rate for 1904 was 142. In 1903 it was 136. The present figure is 37 below the average for the previous ten years.

In the following table, deaths are apportioned according to the locality in which they occurred.

			Population.	Deaths.	Death Rate.
North Ward	...	...	9361	94	10·0
South	„	...	8308	98	11·4
East	„	...	6152	91	14·4
West	„	...	9302	116	12·2
Totals			33123	399	12·0

In the appendix, Table VII. will be found the Zymotic Death Rates contrasted with those supplied by the Registrar General, for England and Wales.

As will be seen by the subjoined Table the death rate this year is lower than any year during the past 30 years.

Death Rates of Lowestoft for 31 years.

1875	17·1	1883	16·0	1891	16·25	1899	13·1
1876	14·5	1884	15·4	1892	16·89	1900	14·9
1877	14·5	1885	15·7	1893	18·76	1901	14·7
1878	16·4	1886	17·5	1894	12·93	1902	13·5
1879	16·6	1887	17·1	1895	20·6	1903	13·0
1880	15·3	1888	15·7	1896	12·8	1904	13·3
1881	12·9	1889	15·2	1897	14·8	1905	12·0
1882	14·0	1890	16·17	1898	16·1		

Morbidity.

During the year 300 cases of notifiable diseases came under observation.

Their locality and age distribution is shewn in the Appendix, Table III., and in Table VI. will be found an analysis of infectious cases reported since the adoption of the Notification Act.

I prefix my remarks on the various infectious diseases by the following Table of the number of notifications received and deaths registered :—

				Cases notified in 1905.	Deaths registered in 1905.
Small-pox	...	...	...	—	—
Scarlet Fever	...	...	...	33	—
Diphtheria	...	...	...	47	7
Membranous Croup	...	...	...	—	—
Typhus Fever	...	...	...	—	—
Enteric or Typhoid Fever	...	...	...	16	1
Continued Fever	...	...	...	—	—
Relapsing Fever	...	...	...	—	—
Puerperal Fever	...	...	...	4	2
Cholera	...	...	...	—	—
Erysipelas	...	..	...	15	—
Plague ...	...	...	...	—	—
Chicken Pox	...	...	...	65	—

Small Pox.

No cases of this disease occurred in the Borough during the year.

Chicken Pox.

On reference to Appendix Table III. and Table VI., it will be seen that 65 notifications of this disease have been received.

Enteric (Typhoid) Fever.

An exceedingly satisfactory feature in this report is the maintenance of the reduction in the number of notified cases alluded to in the last annual returns.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	
North Ward	—	—	3	—	3
South Ward	1	2	2	—	5
East Ward	—	1	1	—	2
West Ward	—	2	1	3	6
	—	—	—	—	—
Totals	1	5	7	3	16

Twelve cases were admitted to the Isolation Hospital, two died, and 10 made good recoveries.

Reference to the foregoing Table will show that 16 cases occurred in the Borough, two were unquestionably imported.

One occurred in Lothing Street, and three in Oulton Street; these are places not connected with either the main drainage or public water supply; their sanitary requirements are served by privy middens, dead wells, and wells for drinking purposes.

Diphtheria.

Forty-seven cases were notified, as against 44 for last year, 30 of which were removed to the Isolation Hospital. Seven deaths were registered, two in their own houses, and five in the Isolation Hospital.

From the accompanying Table it will be seen where disease prevailed.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter	Total.
North Ward	2	1	3	2	9
South Ward	5	3	5	6	19
East Ward	3	4	2	4	13
West Ward	2	1	—	3	6
	—	—	—	—	—
Totals	12	9	10	16	47

The number for the last 16 years will be seen on reference to the Appendix, Table VI.

On reference to Appendix A, Table III., it will be seen that by far the largest number of cases of Diphtheria occurred in the age group 5 to 15, viz. :—30, or more than half the total number notified, the next largest number in age group 1 to 5.

The influence of school attendance upon the prevalence of this disease is an important one, and to save reiteration I beg to refer you to my remarks under this heading in the report for 1902.

Scarlet Fever.

The following table expresses in a short space the localities from which this disease was reported, and also the time of the year in which it occurred, the largest number of cases being reported from the West Ward, followed by the South, North and East respectively. There was a total of only 33 cases as compared with 25 for last year.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
North Ward	2	1	—	2	5
South Ward	3	—	—	4	7
East Ward	—	—	2	1	3
West Ward	9	6	—	3	18
	—	—	—	—	—
Totals	14	7	2	10	33

Reference to Table III. in the appendix shows the number in age groups and localities. A study of this Table is interesting, as it shows that the largest number, 24, or nearly three-quarters (total notified being 33), occurred in age group 5 to 15, or school age; the next largest number, 5, occurred in age group 15 to 25.

Again, reference to Table III. in the Appendix will show that there were treated in the Isolation Hospital, four from the North, three from the South, two from the East, and 14 from the West Wards; a total of 23.

Whooping Cough.

This disease accounted for 15 deaths, nine being under one year of age and six in the age group 1-5 years. Five occurred in first quarter, three in second quarter, three in third quarter, and four in fourth quarter.

Zymotic Enteritis.

Eight deaths were registered, being ten less than last year.

The temperature registered by the four feet earth thermometer reached 56° Fah. on 19th June. and fell to below 56° Fah. on 6th October.

It is another satisfactory feature of this report that, considering the summer was hot and dry, which weather is favourable to the spread of this disease, the number of deaths is less than the previous 12 months, notwithstanding that the summer of 1904 was unfavourable to the spread of the disease.

Anthrax.

At a Meeting of the Sanitary Committee, held in June, the Town Clerk reported that an Inspector of the Board of Agriculture and Fisheries had called on him suggesting that the Council should apply for a license to cremate at the Destructor the carcasses of animals dying from contagious diseases, and it was resolved that the Committee does not see its way to make the suggested application.

Circular to Local Authorities in Great Britain under the Diseases of Animals Acts, 1894 to 1903.

BOARD OF AGRICULTURE AND FISHERIES,

4, WHITEHALL PLACE,

LONDON, S.W.,

18th April, 1905.

Anthrax. Cremation of Carcasses. A¹²⁶_C

SIR,

I am directed by the Board of Agriculture and Fisheries to advert to their Circular letter A¹⁰⁵_C dated the 5th June, 1903, and again to call the special attention of your Local Authority to the

necessity for the careful disposal of the carcasses of animals suspected of, or which have died of, Anthrax, and to the advantages of the adoption of the process of cremation for that purpose.

2. The Board are glad to know that many Local Authorities have seen their way to give effect to the suggestions made by the Board on the subject. From the date of the Circular letter to the 31st December last 51 licenses have been issued, authorising Local Authorities to cremate the carcase on the spot where death occurred, 33 to County Authorities, and 18 to Borough (or Burgh) Authorities ; and in 29 cases permanent destructors or digestors have been approved during the same period as suitable for the purpose in view, the necessary licenses authorising their use having been granted to the Local Authorities concerned.

3. The Board have reason to believe, however, that in some instances Local Authorities have been deterred from making arrangements for the cremation of carcasses as an alternative to burial by considerations of expense, and the Board have therefore caused inquiries to be made with a view to ascertain whether the expenses attending the operation could not be reduced so as to compare favourably with those incurred where burial is adopted.

4. The Board are indebted to Major A. Bostock, M.R.C.V.S., late of the Army Veterinary Department, and of 20, Jury Street, Warwick, for the following description* of a method he employed both in India and in South Africa for cremating carcasses of animals :—

(1) *Dig an oval Pit 7 feet long, 4 feet wide and 3 feet deep, with a cross trench at the bottom 9 inches wide and 9 inches deep.*

(2) *Dig a Trench 4 feet long, 18 inches wide and 4 feet deep, about one foot from and at right angles to one of the long sides of the Pit, and connect this trench by a tunnel with the cross trench in the Pit. In loose soil the tunnel may be made with a drain pipe. If the Pit is dug on level ground, this Trench should be dug 4 feet 6 inches deep to allow of drainage from the cross trenches, which should in that case slope with a tunnel into the Trench.*

(3) *This Trench is for draught and drainage, and should be on the lower side of the Pit.*

(4) *Lay one-third of the fuel in the Pit, some wood being arranged over the cross Trenches, to keep them clear.*

(5) *Sprinkle with Paraffin Oil.*

(6) *Place the Carcase in the Pit and arrange the remaining two-thirds of the Fuel round and over it.*

(7) *Light the fire at the Draught tunnel.*

(8) *When well alight the fire usually requires no further attention, and stirring it would only waste the Fuel.*

(9) *The Fuel required for the Carcase of a large Bullock is about $\frac{1}{2}$ ton of coal, $\frac{1}{2}$ ton of wood, 56 lbs. straw, 2 gall. paraffin—Coke and peat may be substituted if more easily obtainable.*

5. The advantages of this method, which has already been tried experimentally by the Local Authorities of Warwickshire, Shropshire, Cheshire, and Aberdeenshire, are :—

(1) Economy of fuel. (2) No machinery or grid. (3) The pit, being shallow, can usually be dug in the most convenient place for the cremation. (4) The fire, when once well alight, requires no attention. (5) Complete combustion is secured with the least possible quantity of fuel, the carcase itself feeding the fire and the heat being concentrated in the pit, instead of being wasted in the open air. (6) By means of the intense heat generated in the pit, smell from the burning carcase is avoided.

6. The Board believe that at comparatively small initial cost the necessary pits might be permanently constructed of suitable fire-resisting materials for use in urban districts where waste ground under the control of the Local Authority is available, upon which the process could be carried out without any inconvenience to the general public, in a manner which would secure the end the Board have in view. The principle on which such a permanent chamber would be constructed is that of the Lime Kiln. Specifications have been obtained which show that a suitable chamber of Brick and Fire-brick, following the measurements of Major Bostock's pit, could be erected for about £35. The Board would be glad to give details of the construction suggested to any Local Authority contemplating the erection of such a chamber.

7. In these circumstances, the Board would be obliged if you would be so good as to lay the matter before your Local Authority, and, should it be the case that no action has, as yet, been taken by your Local Authority upon the Circular Letter above referred to, I am to ask that the matter may be further considered in the light of the above information.

8. The increase of the number of outbreaks of Anthrax reported to the Board by Local Authorities in Great Britain from 767 in the year 1903 to 1,049 in the year 1904 cannot properly be ignored by the responsible Authorities. It is possible that the increase is more apparent than real and that the additional outbreaks may be largely due to the full information which has been circulated amongst stock-owners throughout the country concerning this disease and to the consequent increase in the number of reports, communicated by owners, of sudden deaths in animals. But whether this be so or not, it is the duty of Local Authorities to omit no precaution as regards the disposal of Anthrax carcasses within their district in order to eliminate one of the chief causes whereby the disease may be spread amongst animals or communicated to human beings.

9. Six duplicates of the present Circular are sent herewith for reference by those concerned, and the Board will be happy to supply further copies on application.

I am, Sir,

Your obedient Servant,

T. H. ELLIOTT, *Secretary*.

At a Meeting held on the 20th December the Deputy Town Clerk reported that on the 19th inst., Mr. Smith reported a case of Anthrax on premises in Melbourne Road. All the precautions directed to be taken by the Anthrax Order of 1895, as to removal and disinfection, etc., had been taken, and the carcase of the beast attacked was destroyed in the Destructor last night. The outbreak had been notified to the Board of Agriculture.

Read Sanitary Inspector's report on the matter.

Resolved that the action taken by the officer in the matter be confirmed, and the expenses incurred be approved, and that the officers be authorised to take any further action which may be necessary.

(Anthrax Order omitted for want of space.)

The Disease was limited to the one Bullock which came from Bradwell in Norfolk.

An investigation was conducted by the County Council's Officials who were unable to trace its source. The diagnosis of the disease was made by the Council's Veterinary Inspector, Sidney Smith, Esq., M.R.C.V.S., and confirmed by a Bacteriological examination in London, by Professor MacFayden.

Cerebro-Spinal Fever.

The following circular letter was received :—

Circular.

Cerebro-Spinal Fever.

*Borough Councils,
Town Councils, and
Urban and Rural
District Councils.*

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.

24th August, 1905.

SIR,

I am directed by the Local Government Board to state that they have reason to believe that the fact that Cerebro-Spinal Fever has recently been somewhat extensively prevalent in Central Europe and in America has given rise in some quarters to a doubt whether the disease in question may not have newly extended to or have been developing in this country.

The Board think it desirable, therefore, to state that, so far as they have been able to ascertain, there is no ground for such apprehension. It appears, in fact, to be probable that cerebro-spinal fever is at the present time not more prevalent in this country than it has been from time to time during the last quarter of a century.

Nevertheless, the Board consider that Sanitary Authorities should be on the alert to detect the presence of the disease in their districts, or to satisfy themselves as to its absence ; and to this end the Board have issued a memorandum, which has been prepared by their Medical Officer, dealing generally with the characteristic symptoms of the disease, and especially with its minor and anomalous manifestations. Copies of this Memorandum are enclosed, and I am to request that one of the copies, together with a copy of this Circular may be given to the Medical Officer of Health for his information.

In the event of the discovery in any district of groups of cases of illness which might possibly be of the nature of cerebro-spinal fever, it would of course be important that the facts should be made the subject of a special report to the Sanitary Authority by the Medical Officer of Health for the district, and that a copy of such report should at the same time be forwarded to the Board. Should such a report be received, the Board would be prepared to render the Sanitary Authority such advice or assistance as, in the circumstances, might appear to be necessary. In the event of the Sanitary Authority desiring, in view of any special circumstances, that cases of cerebro-spinal fever should be made compulsorily notifiable in their district, the Board would be prepared to consider an application for their approval to a resolution of the Authority extending the provisions of the Infectious Disease (Notification) Act, 1889, to that disease for a limited period.

I am to add that the enclosed Memorandum has been placed on sale, so that sanitary authorities desirous of obtaining further copies, or of distributing copies amongst the medical practitioners in their districts, may be readily able to procure the same. Copies may be obtained, either directly or, through any bookseller, from Messrs. Wyman and Sons, Limited, Fetter Lane, Fleet Street, London, E.C.

I am, Sir,

Your obedient Servant,

S. B. PROVIS, *Secretary.*

The Town Clerk

or

The Clerk to the

District Council.

Memorandum on Cerebro-Spinal Fever.

Cerebro-spinal fever, known also as epidemic cerebro-spinal meningitis, spotted fever, and by many other less frequently used names, has recently attracted renewed attention in this country by reason of the serious mortality occasioned by disease of this class in New York and in certain localities on the Continent of Europe. Interest in this malady has been further stimulated by the public notice which has been taken of the recent identification of a case in the neighbourhood of London, and of several cases, four of which terminated fatally, at Irthlingborough in Northamptonshire.

Cerebro-spinal fever is not of rare occurrence in the United Kingdom. In the course of the last forty years this malady is known to have been prevalent in a considerable number of different localities in England and Wales, several of these local outbreaks having taken place in recent years. In some instances they have formed the subject of investigation by a Medical Inspector of the Local Government Board, whose report has usually been made public. Occurrences of cerebro-spinal fever have also been observed in Scotland and in Ireland. There is indeed, as will appear later, reason for belief that this disease is even less uncommon in this country than the foregoing particulars would seem to indicate.

The late Mr. Netten Radcliffe defined cerebro-spinal fever as
 “an acute epidemic disease, characterised by a profound disturbance of the central nervous system, indicated at the onset chiefly by shivering, intense headache or vertigo, or both, and persistent vomiting: subsequently by delirium, often violent, alternating with somnolence or a state of apathy or stupor: an acutely painful condition with spasm—sometimes tetanoid—of certain groups of muscles, especially the posterior muscles of the neck, occasioning retraction of the head; and an increased sensitiveness of the surface of the body. Throughout the disease there is marked depression of the vital powers; not unfrequent collapse; and in its course an eruption of vesicles, petechial, or purpuric spots, or mottling of the skin, is apt to occur. If the disease tend to recovery, the symptoms gradually subside without any critical phenomena, and convalescence is protracted: if to a fatal termination, death is almost invariably preceded by coma. After death the enveloping membranes of the

brain and spinal cord are found in a morbid state, of which the most notable signs are engorgement of the blood vessels, usually excessive, and an effusion of sero-purulent matter into the meshes of the pia mater and beneath the arachnoid."

To the clinical manifestations of the disease, indicated in this definition, may be added the presence of Kernig's sign* and of *tache cérébrale*.†

Local prevalence of a malady distinguished by the foregoing features would, no doubt, attract attention and would, it may be presumed, lead to early recognition of its true nature. But, while these features are characteristic of cerebro-spinal fever of typical and severe sort, experience has taught us that this fever may and does appear in milder or in anomalous forms which render identification difficult, and which lead to its being mistaken for other ailments of more common occurrence in this country. Illustration of this is afforded by certain localised outbreaks of cerebro-spinal fever in the eastern counties in 1890, where this disease was generally mistaken for sunstroke or for enteric fever, or was looked upon as a new form of illness; by the prevalence of what would seem to have been cerebro-spinal fever in Northamptonshire in 1890—91, where the malady was for the most part diagnosed as pneumonia or as sore-throat; and by the occurrence of cerebro-spinal fever in Irthlingborough in the present year, where many of the persons attacked were regarded as suffering from influenza. In these anomalous forms of cerebro-spinal fever, many or even most of the symptoms associated with the recognised type of the disease may be absent, while, in mild cases, they may be so slight or of such brief duration as to escape notice. It is, however, for such cases that it is necessary to be on the outlook, whether in relation with a definite occurrence of cerebro-spinal fever in a locality, or by reason of the prevalence in a particular

* To obtain this sign, the patient is placed so that the hip-joint is semi-flexed, and while the hip-joint is retained in this position, the knee-joint is extended passively. A contraction of the hamstrings then sets in, which causes resistance to the extension.

† A congested streak produced by drawing the finger-nail gently over the patient's thigh, abdomen, or face. In cases of meningitis this appears earlier (within 30 seconds), lasts longer (8, 10, or 15 minutes), and is broader and of deeper colour than in healthy persons.

neighbourhood of illness not clearly referable to definable cause. In these circumstances, there would be advantage in the local Medical Officer of Health endeavouring to secure, by arrangement with the medical men practising in his district, information as to the existence of cases of the kind in question.

Failure to recognise cerebro-spinal fever is also apt to happen when the malady is of the "fulminant" variety, in which death ensues rapidly. In these instances the disease has been mistaken for typhus fever, idiopathic tetanus, or malignant measles.

An important aid to diagnosis may be found in examination of cerebro-spinal fluid, withdrawn from the lower part of the spinal canal by lumbar puncture, for the presence of the "diplococcus meningitidis intracellularis" of Weichselbaum; a micro-organism which is now generally regarded as the specific cause of cerebro-spinal fever.

Whether cerebro-spinal fever is spread by direct infection from person to person is matter of uncertainty; indeed there is as yet no definite knowledge as to the way or ways in which its transmission may take place. Since, however, the possibility of direct personal infection cannot, on the evidence available, be excluded, it will be wise to endeavour to secure, as far as practicable, the isolation of the sick from the healthy. It will also be advisable to apply suitable measures of disinfection to premises that have been occupied by the sick, and to articles that may have been in relation with them.

In view of the fact that the presence of Weichselbaum's diplococcus has been observed in the mucus of the nose and mouth, not only of the sick, but also of those attending on the sick, there may be advantage in resorting to periodical ablutions of the nasal and buccal passages of the sick and their attendants.

W. H. POWER,

Medical Officer.

Local Government Board,
July, 1905.

The Borough Isolation Hospital.

Seventy cases were under treatment during the year: 65 cases were admitted, 51 were discharged, seven died, and there were 12 remaining on 31st December.

The diseases treated were Scarlet Fever, Diphtheria, and Typhoid Fever. The number of cases of each disease, with the result, is stated in the subjoined table. The locality from which they came is shown in the Appendix, Table III.

	Scarlet Fever.	Diph- theria	Typhoid Fever.	Totals.
Remaining 1st January	—	3	2	5
Admitted 	23	30	12	65
Discharged 	18	22	11	51
Died 	—	5	2	7
Remaining 31st December	5	6	1	12

Water Supply.

The public water supply has been kept under the strictest observation, and, in addition to the frequent analyses made on behalf of the Company, a sample is submitted to a London Analyst almost every month during the year. The following analysis will speak for itself.

THE CLINICAL RESEARCH ASSOCIATION, LIMITED.

1 SOUTHWARK STREET,

LONDON BRIDGE, S.E.,

December 12th, 1905.

The specimen of water marked "Company's," received here on 20th December, 1905, has been chemically examined, and I have been instructed to forward the following report thereon:—

ANALYSIS.

				Grains per gallon.
Total Solids (dried at 120° C.)	...	...	...	20·16
Combined Chlorine	...	...	...	2·75
Expressed as Na Cl	...	...	...	4·54

Nitrogen as Nitrates	...	...	...	...	0·66
Nitrites	...	...	...	...	<i>nil</i>
Saline Ammonia	...	...	...	...	0·0004
Albuminoid Ammonia	...	...	...	...	0·0067
Oxygen absorbed in 4 hours at 27° C.	...	...	...	...	0·049
Total Hardness	...	...	...	...	10·2°
Lead or Copper	...	...	...	...	<i>nil</i>

On comparing the figures with those yielded by the analysis made in September last, it will be seen that solids are a trifle higher, chlorides a little lower, nitrates somewhat higher, saline ammonia about the same, albumenoid ammonia and oxygen both distinctly lower.

(Signed) R. BODMER, F.I.C.

C. H. WELLS,
Secretary of the Association.

Sanitation.

PUBLIC SEWERS.

Beach Drainage.

At a meeting held at the Town Hall, on 1st June, the Surveyor reported that he had completed the Beach Drainage at a cost of £1364 11s. 1d. His approximate estimate of the cost was £1892. He also reported that he had completed the Storm Water Relief Sewer over Smith's Marsh at a cost of £282 19s. 6d., his approximate estimate of the cost being £350. Half the estimated cost of the sewer was provided for in the last rate, but as the whole of the work has been paid for, and the estimate for drains has not been exceeded, it will not be necessary to make any further provision for same in the coming rate.

The owners of about 40 privies in the Beach District are under notice to convert them into Water Closets.

Re Flooding St. John's Road, Windsor Road and District.

The following 3 Minutes will explain the position of affairs up to the end of the year:—

1. The question of the flooding of the Windsor Road District was considered, and the Town Clerk submitted a letter from the Land Agent of the Great Eastern Railway Company: that it is the Company's intention to put up gates in the archway under Mill Road, which it is believed will have the effect of preventing the water from flooding the Windsor Road property.

2. The Committee and the Borough Surveyor are of opinion that the proposed gates in the archway, while having a beneficial effect so far as the Windsor Road district is concerned, would have a most disastrous effect upon St. John's Road district, and are further of opinion that the only effectual manner in which the flooding can be prevented is by raising the Quay heading about 18 inches or 2 feet. This is still under consideration.

3. With reference to the flooding of St. John's Road, the Surveyor reported that he had had a penstock fixed in the manhole of the sewer near the bridge, and had given instructions to have same closed whenever there is an extraordinary high tide, and that this would, he anticipated, remedy the flooding.

Arnold Estate Sewer.

At a meeting held in May, the Surveyor submitted plan of new streets on the Arnold Estate, St. Margaret's Road, asking that the sewer in St. Margaret's Road, near Queen's Road and Ipswich Road, may be deepened in order that the estate may be properly drained. The Surveyor reported that he estimated the cost of deepening the sewer, at approximately, £50. This was carried out.

New Sewer, St. Margaret's Road.

At a meeting held during the last Quarter of the year, the Surveyor submitted plan of sewerage St. Margaret's Road and Church Road, West of the Railway line, and reported that his approximate estimate of the cost of carrying out the work is £2320, and the further consideration of the matter was adjourned *sine die*.

Pakefield Street Sewer.

At a special meeting held on the 6th October, the Surveyor reported that on Saturday last a N.W. gale and high tide did a large amount of damage in the vicinity of Pakefield Street, exposing the manhole of the sewer at Pakefield Street, and this morning another high tide caused the collapse of the manhole, which is now lying in pieces on the beach. The Surveyor also reported that it is now necessary that the sewer should be diverted through the premises of Mr. J. J. Colby in Pakefield Road, and reported that with the Town Clerk he had an interview with Mr. Colby, his Solicitor, and Surveyor this morning, and submitted letter from Messrs. Ellen & Holt, dated 6th inst., that Mr. Colby is prepared to consent to this drain being laid on the following terms :—

1. That the drain is laid in accordance with the plans produced this morning, and in the usual concrete bed.

2. That written permission is given forthwith for the erection at any future time of any buildings or erections over the drain or any part of it.

3. That none of the existing drains are interfered with or damaged, and that the whole work is completed to the satisfaction of Mr. Colby's Surveyor, Mr. W. J. Roberts, and

4. That the following sums are paid to Mr. Colby as compensation :—

(a) If the work is entirely completed by Monday night next, the 9th inst., the sum of £50. (b) If completed within one week from to-day, the sum of £75. (c) If not completed within this time then the sum of £100, and (d) Mr. Colby's Solicitor's and Surveyor's costs. This offer is made without prejudice to their Client's rights to compensation in the event of the matter going to arbitration.

The Town Clerk having telephoned Messrs. Ellen & Holt, ascertained that provided the work is completed by Tuesday night next, Mr. Colby will accept the sum of £50 as compensation.

The Committee recommend that the above terms be accepted, and the Surveyor was directed to commence the work of diverting the sewer immediately.

This work was commenced at 4.30 p.m. on Friday, 6th October, and completed by noon the following Sunday. Credit is due to the Surveyor and his staff for this expeditious performance.

Mortuary.

The site of the old Mortuary being required by the Great Eastern Railway Company, on account of the Herring Dock extension, temporary quarters were found in the old Ice House on the Quay, a most unsuitable place, but the only one available.

At a meeting of the Mortuary Sub-Committee and the Railway Officials, several alternative sites were suggested, and the Sub-Committee subsequently visited each of the suggested sites, and is of opinion that there is no alternative to the site suggested by the Company's Officers. It was agreed that the Mortuary should be effectually screened from Pier Terrace, and the Sub-Committee accordingly recommend this site for adoption by the Council.

The Committee recommend that the Report of the Sub-Committee be adopted.

The Surveyor submitted ground plan of accommodation proposed in the New Mortuary for guidance of the Company's Officials in deciding upon the area of the site, and the same was approved.

The Surveyor submitted detailed plans of the proposed new Mortuary, and the same were referred to a Sub-Committee, consisting of Councillors Walker, Berry, and Cadge, with the Medical Officer of Health, for approval, and after such approval the Surveyor was directed to advertise for tenders for constructing the premises and submit same to the next meeting.

The Surveyor submitted tenders for the erection of the new Mortuary, and the Committee recommend that the tender of Mr. G. W. Beckett, of Lowestoft, at £396 12s. 6d., being the lowest, be accepted, that a Contract be entered into with him to carry out the work, and that the Common Seal of the Council be affixed to the Contract and the necessary Bond. This is in course of erection.

Refuse Removal.

Refuse is removed regularly, economically, and efficiently, as will be seen from the following figures :—

There are now in the Borough 8123 houses from which refuse is collected.

				No. of houses.
Daily Collections	...	...	...	1401
Bi-Weekly „	...	...	...	5324
Weekly „	...	...	...	604
Fortnightly „	...	...	...	794

Making the total number of emptyings 1,044,261, at a cost for labour of just over nine tenths of a farthing per collection.

During the year, 79 requests have been received for special refuse removal, as against 90 for 1904, and 122 for 1903. It would appear that the work of refuse removal is done with regularity and efficiency and to the satisfaction of your ratepayers. The expenditure under this heading points further to its being carried out with a high degree of economy. For 8123 houses the cost of labour was £996, or 2s. 5½d. per house per annum, as against 2s. 6d. last year, 2s. 6¾d. the year before, and 2s. 7¾d. the year before that, a figure which contrasts very favourably with your expenditure some years ago—*e g.*, on going back to 1878, I find that with only half the number of houses, the cost of a badly carried out collection, when labour was no whit dearer than it is at present, was £870, or 4s. 11d. per house per annum.

Refuse Destructor.

The Refuse Destructor has efficiently consumed 12,600 tons of garbage and house refuse, and it is worthy of note that I have received no complaint on this score. The neighbourhood is now thickly populated. The shaft is also used for the electric lighting station.

The question of providing additional cells, for coping with the increased amount of material dealt with, is at present under consideration. The cost is heavy, the estimate for two cells being £1159.

Sanitary Inspector's Report for 1905.

Inspections, Houses and Premises		...	...	4754
Re-inspections	...	...	...	760
Privies converted into Water Closets	...	...	...	9
Water Closets supplied with Water	...	...	...	50
Drains Smoke tested	...	...	...	32
Drains Water tested	...	...	...	287
House Drains Ventilated	...	...	...	7

House Drains Trapped	...	...	...	...	18
Blocked Drains Cleansed and repaired			...	...	44
Closets supplied under the Factory and Workshops Act			...		16
Gutting and Curing Yards inspected	...	...	...		1240
Orders received for Dust Removals	...	...	...		79
Visits to Cow Sheds	...	...	...	...	16
Visits to Bake Offices	...	...	...	...	320
Bake Houses Whitewashed	...	...	...	...	13
Houses of Infectious Character Cleansed and Disinfected			...		138
Premises Re-drained	...	...	...	...	37
Dead Wells emptied	...	...	...	...	388
Connections to Public Sewer	...	...	...	...	53
Slaughter Houses Inspected		...	...	...	120
„ „ Yards Re-paved	...	...	...	...	2
Milkshops Inspected	...	...	...	..	50

Disinfections.

Beds, Mattresses, Bolsters and Pillows	...	...			641
Bed Clothing	...	...	...	...	623
Personal Clothing	...	...	...	...	966
Miscellaneous Articles	...	...	...	...	921
Sanatorium Mattresses, &c.		...	...	...	132
Personal Clothing	...	...	...	...	673
Houses (including schools)		...	...	...	138
Total					4094

3000 Herring and 24 boxes of Mackerel were seized and condemned by the Magistrates as unfit for food.

A prosecution followed in the mackerel case, and the defendant was fined £5 and costs. If the full penalty had been inflicted, the fine would have amounted to £40,000.

Food and Drugs Act, 1899.

Appended is the report of the Inspector appointed by the County Council.

EAST SUFFOLK POLICE.

LOWESTOFT STATION,

17th day of March, 1906.

SUPT. SHIPP, D.C.C.

I beg to report that the samples taken under the Food and Drugs Acts by me in the Borough for the year 1905 were as follows:—

Milk	...	...	..	...	22
Spirits	...	...	...	...	4
Chocolate	...	...	...	...	2
Vinegar	...	...	...	...	2
Olive Oil	...	...	...	...	1
Glycerine	...	...	...	...	1
Condensed Milk	...	...	...	...	1
Coffee Essence	...	...	...	...	1
Cream of Tartar	...	...	...	...	1
Pepper	...	...	...	...	1
					36

Thirty-one of which were reported by the Public Analyst as genuine, four Milks and one Rum were returned as adulterated, and prosecutions were instituted in three milk cases and convictions followed, the Analyst's Certificate in the other case being received too late to start proceedings. The Rum was protected by label.

On the advice of the Analyst, one Dairyman was cautioned for deficiency in fat, it not being sufficient for prosecution.

WALTER RUFFLES,

Inspector.

EAST SUFFOLK POLICE,

SUPERINTENDENT'S OFFICE,

LOWESTOFT,

17th March, 1906.

CAPT. MAYNE, C.C.

Submitted for Chief Constable's approval to forward to Medical Officer of Health.

E. C. SHIPP,

Supt. and D.C.C.

EAST SUFFOLK POLICE,

CHIEF CONSTABLE'S OFFICE,

IPSWICH,

18th March, 1906.

SUPT. SHIPP, D.C.C.,

Approved.

J. G. MAYNE, *Capt.*,*Chief Constable of East Suffolk.*

The foregoing report, kindly supplied through the courtesy of the County Council Inspector, reveals the totally inadequate number of samples taken during the year.

The year before last, according to the County Analyst, the samples taken during the previous two years "showed a decrease of 25 per cent."

A further decrease of 50 per cent. took place in 1904.

The Inspector is limited in the number of samples, which he is instructed by the County Council to take, to 36 for the whole year; he is further absurdly restricted to a maximum of 9 per quarter.

Now to the most ignorant and illinformed person the idea of taking only 9 samples during the summer months, when, to say nothing of the normal population, the place is packed with visitors, is ridiculous, and I contend this is not carrying out the spirit of the Act, but is simply playing with it.

This was so flagrantly evident as to cause a recent visit from the Inspector of Foods of the Local Government Board in the person of Dr. G. S. Buchanan. He not only suggested a remedy, but took the trouble to attend a Meeting of the Standing Joint Committee of the East Suffolk County Council. He pointed out the error of its ways and suggested improvements.

The Sanitary Committee, however, has taken the matter in hand, and appointed the Medical Officer of Health and the Sanitary Inspector as Inspectors under the Act, with power to take samples. This, although satisfactory in a way, may become unsatisfactory: firstly, with regard to sampling, it may cause overlapping; secondly, from a financial point of view, it is distinctly

unfair that this Authority should be compelled to pay for the administration of the Act which should be carried out, and the expense borne, by the County Council, in whose hands it was placed by the Act of 1899.

Factory and Workshops Act, 1901.

This Act, which came into force on 1st January, 1902, imposed a good deal of extra work and responsibility on this department. No Inspector has been appointed, but the district is energetically looked after by H.M. Inspector at Norwich, and his Assistant, Mr. T. C. Hayward, who keeps us constantly posted up with information which is invariably acted upon.

Factories, Workshops, Laundries, Workplaces and Homework.

I.—Inspection.

Including Inspections made by Sanitary Inspectors, or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices	Prosecutions.
Factories	30	..	..
(Including Factory Laundries)			
Workshops	145	..	..
(Including Workshop Laundries)			
Workplaces	800	..	..
Homeworkers' Premises	..	..	..
Total	975	..	..

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts ;—*</i>				
Want of cleanliness	..	..	..	..
Want of ventilation	..	..	..	..
Overcrowding	..	..	..	..
Want of drainage of floors	6	6	..	..
Other nuisances	..	..	..	..
†Sanitary accommodations {	insufficient ..	..	..	..
	unsuitable or defective	16	16	..
	not separate for sexes	..	..	..
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101)	..	..	..	..
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	..	..	..	..
Failure as regards list of outworkers (S. 107)	..	..	..	..
Giving out work to be done in premises {	..	..	..	..
which are {	..	..	..	..
(wholesome (S. 108)	..	..	..	..
(infected (S. 110) ..	..	..	..	..
Allowing wearing apparel to be made in premises infected by scarlet fever or small-pox (S. 109)	..	..	..	..
Other offences	..	..	..	..
Total	22	22	..	..

*Including those specified in Sections 2, 3, 7 and 8, of the Factory Act, as remediable under the Public Health Acts.

† For districts not in London, state here whether Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

3.—OTHER MATTERS.

CLASS.					Number.
Matters notified to H.M. Inspectors of Factories :—					
Failure to affix Abstract of the Factory and Workshop Act (S. 133)					4
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) {					..
Notified by H.M. Inspectors ..					..
Reports (of action taken) sent to H.M. Inspectors					..
Other					..
Underground Bakehouses, (S. 101) :—					
Certificates granted					4
In use at the end of 1905					4
Homework :—					
<i>Lists of Outworkers*</i> (S. 107) :—					Number of
Lists received					Lists. Outworkers.
Addresses of outworkers { forwarded to other Authorities					..
{ received from other Authorities					..
<i>Homework in unwholesome or infected premises :—</i>					
Notices prohibiting homework in unwholesome premises (S. 108)					Wearing Apparel: Other.
Cases of infectious disease notified in homeworkers' premises					
Orders prohibiting homework in infected premises (S. 110)					
Workshops on the Register (S. 131) at the end of 1905					
Important classes of workshops, such as workshop bakehouses, may be enumerated here. {					
Total number of workshops on Register ..					332

*The Lists should be received twice in the year. The year's figures required in the table are then obtained by adding together the two half-yearly totals.

SECTION 5. REGISTER OF WORKSHOPS.

A register of workshops has been kept.

A. MARSHALL, D.P.H.,

Medical Officer of Health.

TOWN HALL, LOWESTOFT.

Slaughter Houses.

The slaughter houses have been regularly inspected, and as a rule are regularly lime-washed, in cases wherever necessary, extra lime-washing has been ordered. Only one complaint has been received as to a slaughter-house being a nuisance, which was remedied. A public abattoir would be a step in the right direction.

Milk Shops.

There are 13 milk shops in the town, none of them have cowsheds connected with the premises. They have all been regularly inspected. No complaint has been received. There are four cowsheds in the rural portion of the Borough.

I have the honour to be,

Gentlemen,

Your obedient servant,

A. MARSHALL.

TOWN HALL, LOWESTOFT.

March, 1906.

Port of Lowestoft.

HEALTH REPORT FOR 1905.

At the census of 1891, the Port population was not accredited to any of the wards, and was given as 196. In 1901, the figure was 98. This figure is, however, included in the census returns for the Borough.

The Registrar General reports that the floating *population* enumerated in the Port of Lowestoft at the last Census was as follows :

Royal Navy	...	...	85
Merchant Vessels	...	...	513
Total	...	...	598

It should be noted that the bulk of the fishing population was at sea when the census was taken.

The accompanying *Shipping Accounts* have been furnished by H.M. Collector of Customs :—

INWARDS, FROM FOREIGN PORTS :—

		Vessels.	Tons.
With cargoes, Steam	...	79	23,957
„ Sailing	...	132	10,289
In ballast, Steam	...	62	15,326
„ Sailing	...	65	3,351
Total	...	338	52,923

INWARDS, COASTING :—

With cargoes	...	...	577	70,291
In ballast	...	...	563	43,236
Total	...	...	1,140	113,527

The total tonnage of Inward Shipping during each of the past ten years was as follows :—

1896	..	...	...	111,287
1897	...	...	...	114,851
1898	...	...	...	111,988
1899	...	...	...	121,199
1900	...	...	...	120,468
1901	...	...	...	138,905
1902	...	...	..	150,717
1903	...	...	...	170,467
1904	...	...	...	169,493
1905	...	...	...	166,450

The health of the Port has been most satisfactory.

There were 7 deaths accredited to the port, and afterwards allocated to the various localities to which they belonged.

PORT DEATHS, 1905.

1905.		Age.		
Jan. 20	A.G.B.—	26	Drowned in Harbour	West Ward
June 26	H.H.J.—	31	Drowned in Sea, bathing	London
Aug. 8	J.R.M.—	11	Drowned in Sea, bathing	West Ward
,, 9	S.S.S.—	15	Drowned in Sea, bathing	West Ward
Oct. 6	J.A.—	49	Drowned in Harbour	Holton, Suffolk
Nov. 15	J.T.H.—	54	Drowned in Harbour	East Ward
Dec. 9	G.W.—	54	Drowned in Harbour	East Ward

The number and nationality of ships entering the Port was as follows :—

British	...	...	...	811
French	...	...	...	69
Norwegian	...	...	...	64
Dutch	...	...	...	22
German	...	...	...	9
Swede	...	...	...	35
Belgian	...	...	...	18
Danish	...	...	..	13
Russian	...	...	...	7
Spanish	...	...	...	—
Greek	...	...	...	—
Unknown	...	...	...	—
				1048

The ships have been systematically inspected, twenty-five water casks have been ordered to be cleaned out, 92 men's quarters have been ordered to be cleaned out. No case of illness of any kind has been reported from any trading vessel.

For the information of the Local Government Board the Sanitary Inspector reports as follows :—

During the year, 256 inspections have been made of Canal Boats. Nineteen have had orders to clean out their cabins. No case of illness has been found on any of the boats, nor any case of overcrowding. The water supply is obtained at Lowestoft, Norwich and Beccles, and stored in stone bottles.

Cholera.

Precautions at British Ports.

The prevalence of Asiatic cholera among men employed on the waterways of North Eastern Germany, and the death of a Russian transmigrant from the disease in Hamburg, has led the Local Government Boards in England and Scotland to issue a circular letter to port sanitary authorities calling their attention to the possible risk of the importation of the disease from Baltic and probably North Sea ports. Already the authorities of the chief ports of the United Kingdom, trading with the Baltic were on the alert, and precautions of the nature of those which were proved efficient in 1892 have been put into force.

At the September Meeting of the Sanitary Committee the following circular letter, dated the 4th inst., was read :—

4th September, 1905.

“I am directed by the Local Government Board to state that cases of cholera have recently occurred in certain places on the shores of the Baltic Sea. Cholera was present in several localities in Eastern Europe in 1904, and it has since spread through Russia, and has reached the Baltic by way of the River Vistula in the persons of raftsmen descending that river.

The cases which up to the present have occurred in East and West Prussia are therefore regarded as important cases, and no definite outbreak of the disease has been reported from any quarter of Western Europe. Under the circumstances mentioned, however, the ports of the Baltic, and perhaps some of those of the North Sea, must be looked upon as threatened with the disease, and the authorities of British ports trading with the Baltic and the North Sea ports should therefore be on their guard against the importation of cholera into their districts by means of vessels coming from such ports.

In the event of any port of the Baltic or North Sea being declared definitely infected with cholera, it will be the duty of the sanitary authority to take, with regard to vessels arriving from that port, the action prescribed by the Board's Cholera Order of November 9th, 1896.—S. B. PROVIS, Secretary."

It was referred to the Medical Officer of Health and Sanitary Inspector, and those officers were directed to be in readiness to carry out the regulations of the Cholera Order of 1896, if necessary.

The various Regulations and Forms which this circular letter entailed will be found in their proper sequence.

Regulations as to Cholera, Yellow Fever,
and Plague : Ports.

To all Port Sanitary Authorities ;

To all other Sanitary Authorities as herein defined ;

To the Queen's Harbour Masters of Dockyard Ports ;—

To all Officers of Customs ;—

To all Medical Officers of Health of the Sanitary Authorities
aforesaid ;—

To all Masters of Ships ;

To all Pilots ;—

And to all others whom it may concern.

WHEREAS, We, the Local Government Board, are empowered by Section 130 of the Public Health Act, 1875, as amended by the

Public Health Act, 1896, from time to time to make, alter, and revoke such Regulations as to Us may seem fit, with a view to the treatment of persons affected with Cholera or any other epidemic, endemic, or infectious disease, and preventing the spread of Cholera and such other diseases, as well on the seas, rivers, and waters of the United Kingdom, and on the high seas within three miles of the coasts thereof, as on land; and may provide for the enforcement and execution of such Regulations;

And whereas by Section 1 of the Public Health Act, 1896, it is enacted that Regulations of the Local Government Board made in pursuance of Section 130 of the Public Health Act, 1875, or in pursuance of that section, as extended to London by the Public Health (London) Act, 1891, may provide for such Regulations being enforced and executed by the Officers of Customs and the officers and men employed by the Coastguard as well as by other authorities and officers, and without prejudice to the generality of the powers conferred by those Sections may provide for—

- (a) the signals to be hoisted by vessels having any case of epidemic, endemic, or infectious disease on board; and
- (b) the questions to be answered by masters, pilots, and other persons on board any vessel as to cases of such disease on board during the voyage or on the arrival of the vessel; and
- (c) the detention of vessels and of persons on board vessels; and
- (d) the duties to be performed in cases of such disease by masters, pilots, and other persons on board vessels; Provided that the regulations shall be subject to the consent—

- (a) so far as they apply to the officers of Customs, of the Commissioners of Her Majesty's Customs; and
- (b) so far as they apply to officers or men employed in the Coastguard, of the Admiralty; and
- (c) so far as they apply to signals, of the Board of Trade.

And whereas by certain Orders dated respectively the 28th day of August, 1890, and the 6th day of September, 1892, We made Regulations with a view to the treatment of persons affected with Cholera, and for preventing the spread of the Disease, and it is expedient that such Orders should be revoked, and that Regulations

should be made as herein-after mentioned, to which the Commissioners of Her Majesty's Customs and the Board of Trade have respectively signified their consent so far as such Regulations respectively apply to the Officers of Customs and to signals :

NOW THEREFORE, We, the Local Government Board, do hereby revoke the aforesaid Orders, except in so far as they may apply to any proceedings now pending, and We do, by this our Order, and in exercise of the powers conferred on Us by the Public Health Acts, 1875, the Public Health (London) Act, 1891, and the Public Health Act, 1896, and every other power enabling Us in that behalf, make the following Regulations, and Declare that they shall be enforced and executed by the Authorities and Officers herein-after mentioned :—

PART I.

Art 1.—In this Order—

The term “ Ship ” includes vessel or boat ;

The term “ Officer of Customs ” includes any person acting under the authority of the Commissioners of Her Majesty's Customs;

The term “ Master ” used in relation to a ship, includes the officer, pilot, or other person for the time being in charge or command of the ship ;

The term “ Cholera ” includes Choleraic Diarrhœa ;

The term “ Sanitary Authority ” means every Port Sanitary Authority, and every Council of a County Borough and every Urban or Rural District Council whose district includes or abuts on any part of a customs port, which part is not within the jurisdiction of a Port Sanitary Authority ;

The term “ Local Authority ” means any Council of a County Borough or any Urban or Rural District Council, and in the Administrative County of London any Sanitary Authority as defined by the Public Health (London) Act, 1891 ;

The term “ Medical Officer of Health ” includes any duly qualified Medical Practitioner appointed or employed by a Sanitary Authority to act in the execution of this Order.

The term “ Infected ” means infected with Cholera, Yellow Fever, or Plague : Provided that every ship shall be deemed infected in which there is or has been during the voyage, or during

the stay of such ship in the port of departure or in a port in the course of such voyage, any case of Cholera, Yellow Fever, or Plague.

PART II.

Art 2.—(1.) The Officer of Customs who, on the arrival of any ship from foreign, shall visit the ship, shall ascertain so far as possible, whether such ship is infected, and if he have any reason to suspect that the ship is infected or has come from any infected place shall require the Master of the Ship, or the Surgeon, if the ship carries a Surgeon, to give (in writing under his hand and in the form hereunto appended or in a form to the like effect) a true answer to the following question :—

Question.—Has any case or suspected case of
Cholera,
Yellow Fever, or
Plague

occurred in the ship _____, of which you
are _____, during the voyage from _____, or
during the stay of the ship in that port or in any other port
in the course of the voyage?

Answer.—_____ cases or suspected cases of
occurred on board the _____ during the
voyage from _____ [or during the stay of
the ship in the port of _____].
or

No case or suspected case of Cholera, Yellow Fever, or
plague occurred on board the _____ during the voyage
from _____, or during the stay of the ship in that
port or in any other port in the course of the voyage.

Signed _____,

Master [or Surgeon] of the _____.

(2). The Officer of Customs who, on the arrival of any ship from foreign, shall visit such ship shall, if he find, or have reason to suspect, that the ship is infected, detain such ship, and order the Master forthwith to moor or anchor the same in such position as such

Officer of Customs shall direct; and thereupon the Master shall forthwith moor or anchor the ship accordingly.

Art 3.—Whilst such ship shall be so detained, no person (other than an Officer of Customs or a person acting in the execution of this Order) shall leave the same.

Art 4.—The Officer of Customs detaining any ship as aforesaid shall forthwith give notice thereof, and of the cause of such detention, to the Sanitary Authority of the place where such ship is lying.

Art. 5.—Such detention by the Officer of Customs shall cease as soon as the ship shall have been duly visited and examined by the Medical Officer of Health; or, if the ship shall, upon such examination, be found to be infected, as soon as the same shall be moored or anchored in pursuance of Article 10.

Provided, that if the examination be not commenced within twelve hours after the ship shall have been moored or anchored in pursuance of subdivision 2 of Article 2, the ship shall, on the expiration of the said twelve hours, be released from detention.

PART III.

Art. 6.—Every Port Sanitary Authority and every other Sanitary Authority within whose district persons are likely to be landed from ships coming foreign shall, with the approval of the Chief Officer of Customs of the port, fix some place where any ship may be moored or anchored for the purpose of Article 10; and shall make provision for the reception of patients and persons suffering from Cholera, Yellow Fever, and Plague, and removed under Articles 13 and 14. The place to be fixed as aforesaid, where any ship may be moored or anchored for the purpose of Article 10, shall be some place within the jurisdiction or district of the Sanitary Authority, unless we otherwise consent; in which case the place so fixed shall, for the purposes of this Order, be deemed to be within such jurisdiction or district.

Provided that, in the case of any Dockyard Port for which a Queen's Harbour Master has been appointed, the place where any ship shall be moored or anchored for the purpose of Article 10 shall from time to time be fixed by the Port Sanitary Authority with the approval of the Queen's Harbour Master, instead of with that of the Chief Officer of Customs of the Port.

Provided also, that where, in pursuance of the above-cited Order of the Twenty-eighth day of August, One thousand eight hundred and ninety, or of any Order by the said Order revoked, places have been fixed for the mooring or anchoring of ships for the purposes of the regulations by this Order revoked, such places shall be deemed to have been so fixed in pursuance of and for the purposes of this Order.

Art. 7.—The Sanitary Authority, on notice being given to them by an Officer of Customs, under Article 4, shall forthwith cause the ship in regard to which such notice shall have been given, to be visited and examined by their Medical Officer of Health for the purpose of ascertaining whether such ship is infected.

Art. 8.—The Medical Officer of Health, if he have reason to suspect that any ship coming or being within the jurisdiction or district of the Sanitary Authority, whether examined by the Officer of Customs or not, is infected, shall, or, if he have reason to suspect that the ship has come from an infected place, may, visit and examine such ship for the purpose of ascertaining whether such ship is infected: and may make the like visit and examination in the case of any ship coming or being within the jurisdiction of the Sanitary Authority which has come from an infected place. The Master of any such ship shall permit the same to be so visited and examined.

The Master of any such ship shall also, on being required so to do by the Medical Officer of Health, cause the ship to be brought to, and, if necessary, moored or anchored in some convenient place while the same shall be visited and examined; but due regard shall be had to the safety of the ship and to the convenience of navigation.

Art. 9.—If the Medical Officer of Health on making such examination as aforesaid (whether under Article 7 or under Article 8) shall be of opinion that the ship is infected, he shall forthwith give a certificate in duplicate in the following Form, or to the like effect, and shall deliver one copy to the Master, and retain the other copy or transmit it to the Sanitary Authority. He shall also give to us information as to the arrival of the ship, and such other particulars as we may require.

Certificate.

_____ day of _____ 189 _____

_____ DISTRICT [or TOWN] COUNCIL.

or

_____ PORT SANITARY AUTHORITY.

I hereby certify that I have examined the ship
of _____, now lying in the Port of _____ [or detained
at _____], and that I find that such ship is infected with
[Cholera, or Yellow Fever, or Plague].

Medical Officer of Health [or Medical Practitioner appointed
or employed by the Sanitary Authority].

Art. 10.—The Master of any ship so certified to be infected shall thereupon moor or anchor such ship at the place fixed for that purpose under Article 6, and such ship shall remain there until the requirements of this Order have been duly fulfilled.

Art. 11.—No person (other than an Officer of Customs or a person acting in the execution of this Order) shall leave any such ship until the examination herein-after mentioned shall have been made.

Art. 12.—The Medical Officer of Health shall, as soon as possible after any such ship has been certified to be infected, examine every person on board the same, and in the case of any person suffering from Cholera, Yellow Fever, or Plague, or from any illness which the Medical Officer suspects may prove to be Cholera, Yellow Fever, or Plague, shall certify accordingly.

Art. 13.—Every person certified by the Medical Officer of Health to be suffering from Cholera, Yellow Fever, or Plague shall be removed, if his condition admit of it, to some hospital or other suitable place appointed for that purpose by the Sanitary Authority; and no person so removed shall leave such hospital or place until the Medical Officer of Health shall have certified that such person is free from the said disease.

If any person so certified to be suffering from Cholera, Yellow Fever, or Plague cannot be removed, the ship shall remain subject, for the purposes of this Order, to the control of the Medical Officer of Health; and such person shall not be removed from or leave the ship, except with the consent in writing of the Medical Officer of Health.

Art. 14.—Any person certified by the Medical Officer of Health to be suffering from any illness which such Officer suspects may prove to be Cholera, Yellow Fever, or Plague, may either be detained on board the ship for any period not exceeding two days, or be taken to some hospital or other suitable place appointed for that purpose by the Sanitary Authority, and detained there, for a like period, in order that it may be ascertained whether the illness is or is not Cholera, Yellow Fever, or Plague.

If any such person, while so detained, shall be certified by the Medical Officer of Health to be suffering from Cholera, Yellow Fever, or Plague the provisions of Article 13 shall apply.

Art. 15.—No person on board such a ship as is mentioned in Article 12 who has not been certified as required by that Article shall be permitted to land unless he satisfy the Medical Officer as to his name, intended place of destination, and intended address at such place.

Such name, intended place of destination, and address shall forthwith be given by the Medical Officer of Health to the Clerk to the Sanitary Authority, and such Clerk shall thereupon transmit the same to the Local Authority of the District in which such intended place of destination is situate.

Every such person who, within forty-eight hours after landing, shall arrive at any place of destination or address other than such place or address as aforesaid, shall forthwith upon such arrival notify in writing his place of destination and address to the Medical Officer of Health of the Sanitary Authority, or to the Local Authority, of the District in which such place is situate.

Art. 16.—The Medical Officer of Health shall, in the case of every ship certified to be infected, give directions, and take such steps

as may appear to him to be necessary, for preventing the spread of infection, and the Master of the said ship shall forthwith carry into execution such directions as shall be so given to him.

Art. 17.—In the event of any death from Cholera, Yellow Fever, or Plague taken place on board such ship while detained under Article 10, the Master shall as directed by the Sanitary Authority or the Medical Officer of Health, either cause the dead body to be taken out to sea, and committed to the deep, properly loaded to prevent its rising, or shall deliver it into the charge of the said Authority, who shall thereupon cause the same to be otherwise lawfully and properly disposed of.

Art. 18.—The Master shall cause the clothing and bedding and other articles of personal use likely to retain infection which have been used by any person who may have suffered from Cholera, Yellow Fever, or Plague on board such ship, or who, having left such ship, shall have suffered from Cholera, Yellow Fever, or Plague during the stay of such ship in any Port, to be disinfected or destroyed; and if the Master shall have neglected to do so before the ship arrives in port, he shall forthwith, upon the direction of the Sanitary Authority or the Medical Officer of Health, cause the same to be disinfected or destroyed, as the case may require; and if the said Master neglect to comply with such direction within a reasonable time, the Sanitary Authority shall cause the same to be carried into execution.

Art. 19.—The Master shall cause the ship to be disinfected, and every article therein, other than those last described, which may probably be infected, to be disinfected or destroyed, according to the directions of the Medical Officer of Health.

Art. 20.—Where a ship is not ascertained, or certified to be infected, but has passengers on board who are in a filthy or otherwise unwholesome condition, or has come from a place infected with Cholera, Yellow Fever, or Plague, the Medical Officer of Health may, if in his opinion it is desirable with a view to checking the introduction or spread of Cholera, Yellow Fever, or Plague, give a certificate in duplicate in the following form, or to the like effect, and shall deliver one to the Master, and retain the other or transmit it to the Sanitary Authority:—

CERTIFICATE.

day of _____, 189 .

DISTRICT [or TOWN] COUNCIL.

or

PORT SANITARY AUTHORITY.

I hereby certify that I have examined the ship
from _____, now in the port of _____,
and that such ship has passengers on board in a filthy or otherwise
unwholesome condition [or has come from an infected place], and
that, in my opinion, it is desirable with a view to checking the intro-
duction or spread of Cholera, Yellow Fever, or Plague, that the
persons on board such ship should not be allowed to land unless they
satisfy me as to their names, places of destination, and addresses at
such places.

Signed _____

Medical Officer of Health (or Medical Practitioner appointed
or employed by the Sanitary Authority).

Art. 21.—When such certificate has been given, no person on
board the ship shall leave or be allowed to leave the same unless he
satisfy the Medical Officer Health as to his name, intended place of
destination, and intended address at such place; and such name,
intended place of destination, and address shall forthwith be given by
the Medical Officer of Health to the Clerk to the Sanitary Authority,
and such Clerk shall thereupon transmit the same to the Local
Authority of the district in which such intended place of destination is
situate. Every such person who, within forty-eight hours after
landing, shall arrive at any place of destination or address other than
such place or address as aforesaid shall, forthwith upon such arrival,
notify in writing his place of destination and address to the Medical
Officer of Health of the Sanitary Authority or to the Local Authority
of the district in which such place is situate.

Art. 22.—If the Medical Officer of Health have reason to believe
that any ship coming or being within the jurisdiction of the Sanitary
Authority is infected, or has come from an infected place, he may
direct all bilge water and water ballast to be pumped out in some
suitable place before such ship enters any dock or basin :

Provided that, in every case where there may be reasonable cause to apprehend that the ship may be endangered by the removal of the water ballast, the Medical Officer of Health may cause any tank or other receptacle containing the water ballast to be sealed, and thenceforward, so long as the ship remains within the jurisdiction of the Sanitary Authority, no person shall without permission of the Medical Officer of Health break or remove such seal, or discharge or remove from such tank or receptacle any part of the water ballast.

On the Sanitary Authority providing a proper supply of water for drinking and cooking purposes for persons on board any such ship, the Medical of Health may direct all casks or tanks on board the ship containing water for the use of such persons to be emptied and cleansed, and the Master shall cause the said direction to be carried into effect.

Art. 23.—The Master of any ship, or any other person, shall answer truly all such questions put to him by and give all such information to any Officer of Customs or Medical Officer of Health as may be necessary for any purpose of this Order; and no person who is required in pursuance of this Order to give to the Medical Officer of Health or to notify to any Local Authority the name, and intended place of destination and address of such person shall knowingly give or notify a false or fictitious name, place of destination or address, or refuse to give or notify as aforesaid the true name, intended place of destination and address of such person.

Art. 24.—The Sanitary Authority may appoint one or more legally qualified medical practitioners to act in the execution of this Order, either in place of or as an assistant or assistants to the Medical Officer of Health, and may pay such practitioner or practitioners reasonable remuneration for his or their services.

PART IV.

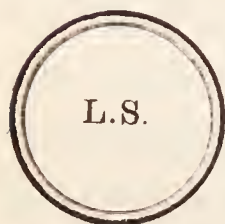
Art. 25.—The Master of every ship infected with Cholera, Yellow Fever, or Plague shall, within three miles of the coast of any part of England or Wales, cause to be hoisted at the masthead, or where best seen, a large flag of Yellow and black, borne quarterly, and shall keep the same displayed during the whole of the time between sunrise and sunset, and no person (other than an Officer of Customs or a person acting in the execution of this Order) shall leave such ship

until after such visit of the Officer of Customs as is mentioned in Article 2, or until after the visit of the Medical Officer of Health in pursuance of Article 8.

PART V.

Art. 26.—Nothing in this Order shall render liable to detention, disinfection, or destruction any article forming part of any mail (other than a parcel mail) conveyed under the authority of the Postmaster General, or of the postal administration of any Foreign Government, or shall prejudicially affect the delivery in due course of any such mail (other than parcel mail) to the Post Office in accordance with the provisions of the Post Office Acts.

Given under the Seal of Office of the Local Government Board, this Ninth day of November, in the year One thousand eight hundred and ninety-six.



HENRY CHAPLIN,
President.

HUGH OWEN,
Secretary.

NOTICE.—The Public Health Act, 1896, provides by sub-section (3) of Section 1 that if any person wilfully neglects or refuses to obey or carry out, or obstructs the execution of, any regulation made under section one hundred and thirty of the Public Health Act, 1875, or in pursuance of that section as extended to London by the Public Health (London) Act, 1891, and as amended by the Public Health Act, 1896, he shall be liable to a penalty not exceeding one hundred pounds, and in the case of a continuing offence to a further penalty not exceeding fifty pounds for every day during which the offence continues.

A further Meeting of the Sanitary Committee was held on the 19th September, when there were present:—

Mr. Alderman Beckett (in the chair).

Aldermen Stebbings and Adams.

Councillors Walker, Bradbeer, Gill, Smith, Boardley and Adams.

Mr. Councillor Spashett also attended this meeting by invitation.

CHOLERA
YELLOW FEVER
PLAGUE

ORDER 9th NOVEMBER, 1896—Art. 9.

REPORT OF ARRIVAL OF SHIP INFECTED WITH

*

Sanitary District.

Name of Ship

Nationality

Number of Officers and Crew

Number of Passengers

Port of Departure

Date

Ports touched at during voyage, with dates

State where water taken in and at what dates

Date of arrival at

Name of Person attacked by

*

Age

Occupation

Residence (if any) in this Country

Date of attack

Present condition

Date of removal to Port Hospital, and date of death if case fatal

General Remarks

(Signed)

Medical Officer of Health.

Date

* Fill in name of disease, and if more than one person attacked give facts for each case separately.

Mr. H. Genochio, Collector of Customs, and Mr. H. J. Henderson, Harbour Master, also attended this meeting by invitation.

The Town Clerk, the Surveyor, the Chief Finance Clerk, the Medical Officer of Health, the Sanitary Inspector, and the Meteorological Observer.

1. The minutes of the last meeting as printed were confirmed and signed.

2. The consideration of the carrying out of the Cholera Regulations was considered and discussed with Mr. Genochio, who stated that he would be pleased to render all assistance in his power as was done in 1892 and 1899. Mr. Genochio stated that the Customs Boarding Station is in the Outer Harbour between the Pier Heads and the Locks, and he had arranged to notify the Medical Officer of Health immediately on any vessel arriving from the Baltic or North German Ports. Councillors Spashett and Bradbeer also stated that they would issue instructions to all Masters of ships arriving from those ports, which would facilitate the carrying out of the existing regulations, and that no ship arriving with a case of sickness on board will be allowed to enter the Harbour.

3. It was resolved that for the present all vessels should be boarded and inspected at the Customs Boarding Station, unless shewing the quarantine flag, when they shall be boarded in the Roads.

4. Resolved that three Assistant Medical Officers be engaged to assist the Medical Officer of Health in the inspection of ships at a fee of 10/6 per inspection, and the Medical Officer of Health was authorised to appoint such deputies.

5. Resolved that the Sanitary Inspector's house be connected by Telephone with the Telephone Exchange, and the Collector of Customs arranged to communicate with the Sanitary Inspector on the arrival of all vessels.

6. It was reported that the Mooring Station for the purposes of Articles 6 and 10 of the Regulations of 1896, is not nearer the Port than a line drawn from Corton Pole and Pakefield Street respectively.

7. The Chairman expressed to Messrs. Genochio & Henderson the thanks of the Committee for their attendance and assistance this evening.

The Boarding Station outside the harbour being not nearer the harbour to the north than north of Corton Pole, and not nearer the harbour to the south than south of Pakefield Street, was found to be an impracticable regulation, and in order to facilitate inspection, a meeting was held on 16th November, at which there were present :—

Mr. Alderman Beckett (in the chair).

Alderman Mobbs and Stebbings.

Councillors Smith, Jackman, Fry, Harrold, Cadge and Turner.

The Town Clerk, the Surveyor, the Medical Officer of Health, and the Sanitary Inspector.

Mr. H. Genochio (Collector of H.M. Customs) and Captain Henderson (Harbour Master) also attended this meeting by invitation.

1. Mr. Alderman Beckett was duly appointed Chairman of this Committee.

2. The minutes of the last meeting, as printed, were confirmed and signed.

3. Read letter dated 10th inst., from the Collector of H.M. Customs at Lowestoft, with reference to making the Customs Boarding Station identical with the places at which “infected” vessels and vessels with “dangerous infectious disorders” are required by the Port Authority to anchor for the purposes of the Public Health Act. The present Customs Boarding Station is the Outer Harbour at Lowestoft, and vessels bringing to at that station fulfil the requirements of the Customs department. The Board of Customs, with a view of helping the Port Authority, propose that the Customs Boarding Station shall for the future be the place fixed for the mooring of “infected” vessels under Art. 6, part iii, of the Health Regulations of 1896, and that it should also be identical with the place fixed for the bringing to of vessels having “dangerous infectious disorders” for visitation by the Port Medical Officer.

4. *The Committee recommend that for the purposes of the regulations made under Art. 6, part ii, of the Health Regulation of 1896, the place for mooring infected vessels shall be in the South Road, between the entrance of the Harbour and the North Newcombe Buoy, and the Committee recommend that for the purpose of the Port*

Regulations of 18th September, 1888, the mooring place shall be the same place, and that the regulations be amended accordingly, and that the Town Clerk be directed to apply to the Local Government Board for their sanction to this alteration.

5. Resolved that the Committee consent that the above mooring places shall be identical with the Customs Boarding Station.

6. The Medical Officer of Health was directed to act upon the above recommendation from to-day.

Every facility was afforded by the Collector of Customs and his staff, who issued the following regulations :—

Health Regulations.

The following instructions are, until further notice, to be observed by all officers in connection with the arrival of vessels from Foreign at this port :—

1. The questions, as to the health of all persons on board the vessel, etc., are to be put before the vessels enter the Inner Harbour.

2. In the event of any case of sickness on board coming to the knowledge of the Officer putting the questions, she is not to be allowed to enter the Inner Harbour, but she is to be detained in the Outer Harbour until the arrival of the Medical Officer of Health or his Deputy, no person being, in the meantime, allowed to leave the vessel.

3. In any case, however, (whether there is sickness on board or not) should the vessel arrive from a Baltic or German port, she is not to be allowed to pass into the Inner Harbour until the arrival of the Medical Officer of Health. Information as to her arrival is to be immediately communicated to the Medical Officer of Health through the Telephone Exchange, Bevan Street, arrangements having been made by the Medical Officer of Health for the use of the telephone by officers conveying these messages, without charge. Pending the arrival of the Medical Officer no person is to be allowed to leave the vessel. Questions, No. 226, are to be put to the master of the vessel, and the replies are to be signed by him.

4. In the event of a vessel arriving with Cholera, Yellow Fever, or Plague on board. immediate notice is to be given to me.

5. As it is absolutely essential in the interest of public health that the utmost precautions should be taken to prevent the introduction of disease into this Port, the officers will, under no circumstances, fail to put the health questions before the vessel enters the Inner Harbour, and they will take care that the above instructions are fully and rigorously observed.

H. GENOCHIO,
Collector.

CUSTOM HOUSE,
LOWESTOFT,
September, 1905.

Until further notice all vessels arriving from ports in the Baltic or Germany are to be detained in the Outer Harbour, at the Jetty, until the arrival of the Medical Officer of Health.

On boarding all vessels in the Roads, you will make it your business *at once* to inquire from the master as to the health of all persons on board, and also as to the port from which he has arrived.

As soon as you bring the vessel into the Harbour you will give all information to the Customs Officer, on the jetty, who will put the questions as to health.

Should you find on boarding the vessel that she is infected, you will cause the prescribed signal (a black and yellow flag borne quarterly) to be hoisted at the maintopmast by day, and the prescribed signal (three lights in the form of a triangle, one white and two red) at night-time.

In the case of all vessels from the Baltic and German ports, you will immediately on boarding, caution the master against allowing any person to leave the vessel until the arrival of the Medical Officer of Health, and you will generally co-operate with the Customs Officers in preventing any infringement of the Health Regulations.

NOTICE to Sanitary Authority issued in pursuance of the Orders of
the Local Government Board.

To the Sanitary Authority of _____

Port of _____

SIR,

I hereby apprise you that I have detained the Ship

Master

from

as I find from enquiry that*

The ship is moored (or anchored) at

awaiting visitation, and examination, by your Medical Officer. The mooring (or anchoring) of the Ship took place at _____ and the Ship will be released by me at the expiration of twelve hours from that time, if the examination by your Officer is not then commenced.

(Signed)

Boarding Officer, H.M. Customs,

Port of

Here state the reason for suspecting that the ship is infected.

† Here state the exact time.

“INFECTED” VESSELS.

FORM OF QUESTION to be put to, and of Answer to be given by, Masters or Surgeons of Vessels arriving from Foreign Ports, in all cases in which the replies to the Questions put verbally under paragraph 6 of General Order $\frac{63}{1896}$ as to England and Wales, and corresponding Orders for Scotland and Ireland, indicate that the Vessels are in any way infected with Cholera, Yellow Fever or Plague, or as to which Vessels the Boarding Officers have, on any other ground, reason to suspect that they are infected or have come from an infected place.

Question.—Has any case or suspected case of—

Cholera,

Yellow Fever, or

Plague

occurred in the ship

, of which you

are , during the voyage from

during the stay of the ship in that Port or in any other Port in the course of the voyage?

Answer.—

cases or suspected cases of

occurred

on board the

during the voyage

from

or during the stay of

the ship in the Port of

NOTE.—The Form of Answer which is not applicable is to be erased.

or

No case or suspected case of Cholera, Yellow Fever, or Plague occurred on

board the

during the voyage

from

, or during the stay of the ship

in that Port or in any other Port in the course of the voyage.

Signed

Master or Surgeon] of the

Countersigned,

Customs Boarding Officer.

Shortly after these important regulations were put into execution, the Medical Officer of Health reported that 33 inspections of Steam Ships, under the Cholera Order, had been made, 21 by himself and 12 by one of the Deputy Medical Officers of Health, who is allowed 10/6 per visit. The Medical Officer of Health applied for the same remuneration as is paid to the Deputy in respect of inspections made by him after 6 p.m.

The Medical Officer of Health was directed to furnish the Committee with a list of inspections made by him between the hours of 6 p.m. and 9 a.m.

With reference to the inspection of Shipping under the Cholera Regulations, it was resolved that for the present the inspections shall be made by the Sanitary Inspector, who shall only call in the Medical Officer or his Deputy in case of necessity.

The following extract from the *Lancet*, of 21st October, explains the slight relaxation with regard to inspection:—

Cholera in Germany.

The fear that the cholera epidemic might attain considerable proportions in Germany and the neighbouring countries has fortunately not been justified by the result, for only two cases, of which one proved fatal, have occurred in Berlin. The patients lived on board river or canal boats, and their families, who were at once put under strict isolation in the Moabit Hospital, are now discharged. In the eastern provinces no new case has been discovered for several days, but notwithstanding this satisfactory state of matters the river police and sanitary stations will be on the alert for some time owing to the fact that cholera is still supposed to be prevalent in Russia. Cholera bacilli have been discovered in several instances in the fæces of healthy persons residing in the infected district, a fact which is regarded as a proof that the virulence of the bacillus is decreasing and as an indication that the epidemic will soon decline. The total number of cases has hitherto been 241 with 79 deaths.

The Medical Officer of Health, as directed by the Committee, submitted a list of nine ships inspected by him under the Health

Regulations between the hours of 6 p.m. and 9 a.m., and *the Committee recommend that Dr. Marshall be made a special allowance of £3 3s 0d., in respect of the above inspections.*

REPORT FROM THE CORONER.

MENDHAM,

HARLESTON,

March 28th, 1906.

I find that the number of inquests held by me in the Borough of Lowestoft, for the year 1905, included 39 deaths, but I do not call to mind any requiring special remarks.

Yours faithfully,

C. W. CHASTON.

TO DR. MARSHALL.

Vital Statistics of Whole District during 1905 and Previous Years.

Name of District—BOROUGH AND PORT OF LOWESTOFT.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1895	25914	850	32·8	157	184	555	21·4	21	5	29	579	22·3
1896	26554	866	32·6	108	124	342	12·8	12	6	12	348	13·1
1897	27210	820	30·0	126	153	403	14·8	19	8	16	411	15·1
1898	27883	864	30·9	159	184	449	16·1	26	8	19	460	16·4
1899	28571	858	30·0	121	141	376	13·1	22	10	11	377	13·1
1900	29288	857	29·2	118	137	438	14·9	29	7	10	441	15·0
1901	30026	954	31·7	165	170	444	14·7	28	10	25	459	15·2
1902	30771	959	31·1	118	123	417	13·5	29	8	32	441	14·3
1903	31526	967	30·6	132	136	412	13·0	36	14	34	432	14·0
1904	32320	966	29·8	138	142	430	13·3	30	5	38	463	14·3
Averages for years 1895-1904.	29007	896	30·8	134	149	426	14·7	25	8	22	441	15·2
1905	33123	934	28·2	105	112	394	11·8	40	17	22	399	12·0

* Rates in Columns 4, 8 and 13 calculated per 1000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The “Public Institutions” to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made should be given on the back of this Table.

Area of District in acres
(exclusive of area
covered by water) } 2,178.

Total population at all ages	...	29,850	} At Census of 1901.
Number of inhabited houses	...	6,065	
Average number of persons per house		4.9	

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District
General Hospital.	Oulton Workhouse,	General Hospital.
Convalescent Home.	Small Pox Hospital.	Isolation Hospital.
Isolation Hospital.		Convalescent Home.

Is the Union Workhouse within the District?—No.

Vital Statistics of Separate Localities in 1905 and previous years.
Name of District—BOROUGH AND PORT OF LOWESTOFT.

Names of Localities.	1—FOR WHOLE DISTRICT.				2—NORTH WARD.				3—SOUTH WARD.				4—EAST WARD.				5—WEST WARD.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
1895 ..	25,914	847	548	157	7115	265	192	46	5721	157	86	26	5100	138	117	29	7189	287	160	55
1896 ..	26,554	866	338	108	7233	262	92	26	5852	150	69	20	5200	150	55	11	7295	304	109	51
1897 ..	27,210	820	397	126	7450	256	116	44	6000	154	75	24	5211	154	71	18	7400	256	98	35
1898 ..	27,883	883	442	157	7450	275	146	57	6000	187	88	36	5211	146	88	30	7400	275	99	35
1899 ..	28,571	858	363	121	7500	252	103	34	6270	188	74	28	5250	157	58	16	7433	261	99	41
1900 ..	29,288	866	419	118	7600	268	137	37	6500	175	83	17	5330	171	90	24	7454	252	109	40
1901 ..	30,026	948	459	165	8503	322	153	59	7468	198	92	30	5854	154	98	36	8201	274	108	40
1902 ..	30,771	959	441	118	8725	287	147	46	7649	205	117	22	5994	185	83	19	8403	282	94	31
1903 ..	31,536	969	432	132	8844	311	137	42	7922	185	112	24	6032	146	75	26	8738	327	108	40
1904 ..	32,320	966	463	138	9067	282	155	42	8142	220	91	25	6103	157	86	24	9008	307	131	47
Averages of Years 1895 to 1904	29,007	898	430	134	7948	278	137	43	6752	181	88	25	5528	155	82	23	7852	282	111	41
1905 ..	33,123	934	399	105	9361	293	94	27	8308	201	98	19	6152	140	91	22	9302	300	116	37

NOTES.—(a) The separate localities adopted for this table should be areas of which the population are obtainable from the census returns, such as wards, parishes, or groups of parishes or registration sub-districts. Block 1 may, if desired, be used for the whole district: and blocks 2, 3, &c., for the several localities. In small districts without recognized divisions of known population this Table need not be filled up.

(b) Deaths of residents occurring in public institutions beyond the district are to be included in sub-columns c of this Table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I as to meaning of terms “resident” and “non-resident.”)

(c) Deaths of residents occurring in public institutions, whether within or without the district, are to be allotted to the respective localities according to the addresses of the deceased.

(d) Care should be taken that the gross totals of the several columns in this Table respectively equal the corresponding totals for the whole districts in Tables I and IV: thus, the totals of sub-columns a, b, and c, should agree with the figures for the year in the columns, 2, 3, and 12, respectively, of Table I: the gross total of the sub-columns c should agree with the total of Column 2 in Table IV, and the gross total of sub-columns d with the total of column 3 in Table IV.

TABLE III.

Cases of Infectious Disease notified during the year 1905.

Name of District :—BOROUGH AND PORT OF LOWESTOFT.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							Total Cases notified in each locality				No. of Cases removed to Hospital from each locality.				
	At all Ages.	At Ages†—Years.						65 and upwards.	Total Cases notified in each locality				1 North Ward.	2 South Ward.	3 East Ward.	4 West Ward. (H)
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	1 North Ward.		2 South Ward.	3 East Ward.	4 West Ward.					
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria ..	47	9	30	6	2	..	..	9	19	13	6	6	12	7	5	..
Membranous croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	15	3	1	2	9	..	..	2	4	2	7	7	..	..	..	..
Scarlet fever ..	33	3	24	5	..	..	..	5	7	3	18	18	3	2	14	..
Typhus fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	16	1	5	3	7	..	..	3	5	2	6	6	3	1	5	..
Relapsing fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal fever ..	4	..	..	..	4	..	..	1	2	1	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
* Measles ..	120	50	56	6	3	..	..	29	62	9	20	20	..	..	..	..
Chicken Pox ..	65	30	25	..	2	..	..	17	32	9	7	7	..	..	..	..
Totals ..	300	14	96	141	22	27	..	66	131	39	64	13	18	10	24	24

NOTES.—The localities adopted for this table should be the same as those in Tables II. and IV.

State in space below the name of the Isolation Hospital, if any, to which residents in the district, suffering from infectious disease, are usually sent. Mark (H) the locality in which it is situated, or if not within the district, state where it is situated, and in what district. Mark (W) the locality in which a workhouse is situated.

*This space may be used for record of other diseases the notification (compulsory or voluntary) of which is in force in the district.

†These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

Isolation Hospital :—SANATORIUM, ROTTERDAM ROAD, LOWESTOFT.

Small Pox Hospital :—CARLTON COLVILLE, RURAL DISTRICT MUTFORD AND LOTHINGLAND.

TABLE IV.

Causes of, and Ages at, Death during Year 1905.

Name of District: BOROUGH OF LOWESTOFT

(SEE NOTES AT BACK).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents," whether occurring in or beyond the District.							Deaths at all Ages of "Residents" belonging to localities, whether occurring in or beyond the District.				Total Deaths whether of Residents or "Non- Resi- dents" in Public Institu- tions in the District.
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	North Ward.	South Ward.	East Ward.	West Ward.	
1	2	3	4	5	6	7	8	9	10	11	12	13
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..
Measles	3	1	2	..	..	..	..	..	3	..	..	..
Scarlet fever	..	..	..	..	..	..	..	..	..	..	..	..
Whooping-cough	15	9	6	..	..	..	..	2	3	3	7	..
Diphtheria and membranous croup	7	..	5	2	..	..	..	1	3	3	..	5
Croup	3	..	3	..	..	..	..	..	2	..	1	1
Fever { Typhus	..	..	..	..	..	..	..	..	..	..	..	..
{ Enteric	1	..	..	..	1	..	..	1	..	..	..	2
{ Other continued	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic influenza	1	..	..	..	1	..	..	..	..	1	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa (<i>See notes at back</i>)	8	8	..	..	..	..	..	2	..	2	4	..
Enteritis (<i>See notes at back</i>)	6	3	2	..	..	..	1	1	1	1	3	..
Puerperal fever	2	..	..	..	..	2	..	..	..	1	1	1
(<i>See notes at back</i>)												
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..
Other septic diseases	7	1	..	3	..	3	..	2	1	1	3	3
Phthisis (Pulmonary Tuperculosis)	32	..	..	1	4	25	2	8	9	8	7	1
Other Tubercular diseases	12	3	5	2	1	1	..	3	1	2	6	4
Cancer, malignant diseases (<i>See notes at back</i>)	21	..	..	..	..	12	9	4	5	6	6	5
Bronchitis	37	11	4	..	..	2	20	8	6	14	9	..
Pneumonia	27	8	7	1	2	6	3	6	9	3	9	3
Pleurisy	1	..	1	..	..	..	..	1	..	..	..	..
Other diseases of Respiratory organs	9	4	..	..	..	2	3	1	3	3	2	..
Alcoholism	8	..	..	..	..	6	2	2	1	2	3	..
Cirrhosis of Liver }												
Venereal diseases	4	4	..	..	..	..	..	1	..	1	2	..
Premature birth	23	23	..	..	..	..	..	7	2	3	11	..
Diseases and accidents of parturition	1	..	..	..	..	1	..	..	..	1	..	..
Heart diseases	48	2	1	1	1	17	26	11	18	8	11	5
Accidents	11	1	..	1	2	5	2	3	4	2	2	3
Suicides	2	..	..	..	..	2	..	..	1	1	..	..
All other causes	110	27	5	1	3	24	50	30	26	25	29	7
All causes	399	105	41	12	15	108	118	94	98	91	116	40

NOTES.

- (a) In this Table all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-12, to be *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-12 of this Table.
- (b) See notes on Table I. as to the meaning of "Resident" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" should be the same as those in Tables II. and III.
- (c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), to be entered in the last column of this Table. The total number in this column should equal the figures for the year in column 9, Table I.
- (d) The total deaths in the several "Localities" in columns 9-12 of this Table should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of this Table should equal the gross total of columns 9-12, and the figures for the year in column 12 of Table I.
- (e) Under the heading of "Diarrhœa" are to be included death certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from
 Epidemic enteritis;
 Zymotic enteritis;
 Epidemic diarrhœa. Summer diarrhœa;
 Dysentery and dysenteric diarrhœa.
 Choleraic diarrhœa, cholera, cholera nostras
 (in the absence of Asiatic cholera).

Under the heading of "Enteritis" are to be included those certified as from Gastro-enteritis, Muco-enteritis, and Gastric catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, especially those of infants, under the specific term "Diarrhœa." Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms.

In recording the facts under the various headings of Tables I., II., III. and IV., attention has been given to the notes on the Tables.

A. MARSHALL,

Medical Officer of Health.

February, 1906.

Infantile Mortality during the Year 1905.

CAUSE OF DEATH.	Under 1 week	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months	11-12 months	Total Deaths under 1 year.
All Causes—																	
Certified	23	1	6	2	32	10	13	8	6	3	6	2	6	5	3	5	99
Uncertified	1	..	..	..	1	1	1	1	1	..	..	..	1	..	..	..	6
Common Infectious Diseases—																	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria: Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..	..	..	..	3	1	1	..	..	..	1	1	..	2	9
Diarrhœal Diseases—																	
Diarrhœa, all forms	..	..	..	..	..	1	..	1	1	..	2	..	..	..	2	..	7
Enteritis (not Tuberculous)	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Gastritis, Gastro-intestinal Catarrh	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	3
Wasting Diseases—																	
Premature Birth	14	..	5	..	19	1	1	2	..	..	..	..	..	..	..	..	23
Congenital Defects	4	..	..	1	5	2	1	..	..	..	1	..	..	..	..	..	9
Injury at Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Want of Breast-milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus	..	1	..	1	2	1	4	2	..	1	..	..	..	..	..	..	10
Tuberculous Diseases—																	
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2
Tuberculous Peritonitis:																	
Tabes Mesenterica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2
Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Meningitis (not Tuberculous)	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Convulsions	..	..	..	..	..	..	3	..	..	..	..	1	1	..	..	..	5
Bronchitis	..	..	1	..	1	4	..	..	2	1	2	..	..	1	..	..	11
Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2
Pneumonia	..	..	..	..	..	1	..	1	1	..	..	..	1	2	1	1	8
Suffocation, overlaying	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Other Causes	6	..	..	..	6	..	..										

Births in the year { legitimate, 897,
 } illegitimate, 37.

Population,
Estimated to middle of 1905,
33,123

Deaths from all Causes at all Ages, 105.

TABLE VI.
Cases of Infectious Diseases Notified since 1890.

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
Scarlet Fever ...	3	8	32	87	56	19	55	157	53	161	124	243	266	102	25	33
Diphtheria ...	10	5	62	112	65	46	46	29	15	21	82	85	73	49	44	47
Typhoid Fever ...	64	30	21	63	31	41	36	44	46	43	13	11	19	12	19	16
Puerperal Fever	5	4	5	2	4	2	4	1	3	1	...	1	1	4	1	4
Erysipelas ...	27	17	14	27	15	16	17	17	14	21	21	18	27	21	14	15
Measles ...	...	...	...	...	...	...	24	8	83	725	441	347	72	210	799	120
Chicken Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	35	110	65

TABLE VII.
Annual Death-rates per 1000 from all Causes, and from several Zymotic Diseases, during the year 1905.

	Cols.	Births 1	All Causes 2	Principal Zymotic Diseases Cols. 4-10 3	Small Pox 4	Measles 5	Scarlet Fever 6	Diph- theria 7	Whoop- ing Cough. 8	Fever 9	Diar- rhoea 10	Deaths under 1 Year per 1000 Births 11
England and Wales	...	27·2	15·2	1·52	0·00	0·32	0·11	0·16	0·25	0·09	0·59	128
76 Great Towns	...	28·2	15·7	1·88	0·00	0·39	0·13	0·16	0·29	0·08	0·83	140
141 Smaller Towns	...	26·9	14·4	1·50	0·00	0·31	0·11	0·15	0·23	0·13	0·57	132
England and Wales, less the 217 Towns		26·3	14·9	1·09	0·00	0·24	0·09	0·15	0·20	0·09	0·32	113
Lowestoft	...	28·2	12·0	1·02	0·00	0·09	0·00	0·21	0·45	0·03	0·24	112

TABLE VIII.
Return to Dr. A. MARSHALL, Medical Officer of Health, of Number
of Houses, &c., in the Borough.*

BOROUGH OF LOWESTOFT.

Name of Ward.	Number of Houses, &c.	Number of Cottages £7 10s. and under.	Total.	Inhabited.	Uninhabited.	Total.
NORTH	980	1143	2123	2086	37	2123
SOUTH	1572	680	2252	2111	141	2252
EAST	996	580	1576	1516	60	1576
WEST	1260	897	2157	2122	35	2157
	4808	3300	8108	7835	273	8108

31st January, 1906.

F. GAGE, Rate Collector,
Town Hall, Lowestoft.

*This table includes, in addition to domestic dwellings, all separate buildings which are liable to be inhabited for purposes of trade or business or occasional meeting.

TABLE IX.

LOWESTOFT WATER AND GAS COMPANY.

Return of Houses in Lowestoft and Kirkley supplied with Company's Water for Domestic Purposes. Number of W.C.s and Baths.
Year ending 25th December, 1905.

Total No. of Houses supplied.	Houses with 1 W.C.	Houses with 2 W.C.s.	Houses with 3 W.C.s.	Houses with 4 W.C.s.	Houses with 5 W.C.s.	Houses with 6 W.C.s.	Houses with 7 W.C.s.	Houses with 1 Bath.	Houses with 2 Baths.	Houses with 3 Baths.	Total No. of Houses with W.C.s.	Total No. of Houses with Baths.	Total No. of Houses without W.C.s.
6851	5023	1254	127	18	1	1	1	669	3	1	6425	673	426

LOWESTOFT,
17th March, 1906.

For the Lowestoft Water and Gas Company,
JOSEPH HAWKSLEY,
Manager.

Meteorological Report.

*To the Mayor, Aldermen and Councillors of
the Borough of Lowestoft.*

GENTLEMEN,

I beg to present the Annual Report of the Meteorological Department for the year 1905.

The Observatory was inspected, and the instruments tested, by Wm. Marriott, Esq., of the Royal Meteorological Society, who reported that they were all in a most satisfactory condition.

The year has again been a record one as regards sunshine and rainfall; the number of hours recorded by the Campbell Stokes Sunshine Recorder being well above those of any other of the leading Health Resorts. This instrument, unlike the Jordan Photographic Recorder, receives only absolutely unclouded sunshine.

The following is an extract from an article on "Sunlight in 1905," which appeared in the leading columns of "*The Lancet*" of 6th January, 1906.

"Among the resorts on the east coast of Great Britain there is one spot that stands far above the others. This is Lowestoft, the most eastern part of the kingdom. Its grand total of 1827 hours was not only larger than that at any other place in its vicinity, but also larger than at any of those on the other coasts."

Sunshine in 1905.

Station.	No. of hours.	Station.	No. of hours
<i>East—</i>		<i>West—</i>	
Aberdeen	1360	Tenby	1735
Scarborough	1528	Aberdovey	1509
Skegness	1760	Llandudno	1581
Lowestoft	1827	Southport	1603
Clacton-on-Sea	1688	Blackpool	1760
Margate	1588	Douglas, Isle of Man	1743
<i>South—</i>		<i>Inland—</i>	
Hastings	1773	Glasgow	1201
Eastbourne	1691	Harrogate	1609
Brighton	1678	Manchester	1019
Worthing	1714	Nottingham	1400
Southampton	1664	Birmingham	1173
Bournemouth	1815	Bath	1542
Torquay	1786	London, Westminster	1289
Jersey	1733		

A review of the foregoing, the comparative table, and the statistics, taken in conjunction with the extraordinary low Death Rate, viz.: 12.0 per 1000 population, will undoubtedly prove that Lowestoft possesses all those good qualities necessary to make an ideal Health and Holiday Resort.

Reference to previous reports will further shew that these conditions are not, by any means, confined to 1905.

Many interesting enquiries relative to Meteorological matters have been received verbally and through the post; full particulars have in all cases been given.

I remain, Gentlemen,

Your Obedient Servant,

C. W. EDWARDS, F.R.M.S.,

Borough Meteorologist.

Comparison with other Health Resorts, 1905.

*(These returns are extracted from the quarterly return of
the Registrar General)*

Station.	Mean Temperature.		Range of Temp. Degr. Fah.	Humidity. %	Rain. Inches.
	Year.	June to Sept.			
	Degr. Fah	Degr. Fah.			
Lowestoft ...	48·4	59·7	10 9	83	21·35
Buxton ...	48·7	55·3	4·7	82	41·91
Bath ...	49·1	59·4	14·5	83	22·99
Brighton ...	50·5	60·7	10·4	*	25·30
Eastbourne ...	50·5	59·9	9·8	83	30·10
Jersey ...	52·1	61·5	9·9	83	30·31
London (Greenwich) ...	49·9	61·3	9·0	81	23·03
Llandudno ...	49·8	58·9	10·3	78	26·05
Ventnor ...	51·0	60·5	10·5	82	27·58
Oxford ...	49·7	59·2	14·1	82	21·41

* No information.

The Barometer, Lowestoft, 1905.

(Corrected for temperature and reduced to sea-level.)

Month.	Mean pressure of the air in the month.	Highest in month.	Date	Lowest in month.	Date	Mean Pressure for Latitude.	Difference from this mean in 1905.
	Inches.	Inches.		Inches.		Inches.	Inches.
Jany.	30·242	30·85	29	29·22	16	29·936	+0·306
Feb.	30·121	30·54	8	29·16	26	29·940	+0·181
Mar.	29·745	30·30	3	29·09	15	29·880	—0·135
April	29·835	30·27	1	29·26	10	29·950	—0·115
May	30·118	30·43	5	29·43	2	29·981	+0·137
June	29·946	30·40	23	29·68	17	29·979	—0·083
July	30·029	30·26	3	29·76	23	29·958	+0·071
Aug.	29·876	30·26	13	29·18	28	29·945	—0·069
Sept.	29·949	30·38	17	29·48	10	29·935	+0·014
Oct.	29·970	30·45	11	29·20	4	29·893	+0·077
Nov.	29·709	30·28	18	28·93	26	29·890	—0·181
Dec.	30·236	30·86	12	29·26	29	29·945	+0·291
Mean	29·981	Highest of all. 30·86	Dec.	Lowest of all. 28·93	Nov.	29·937	+0·044

The barometer is thus seen to have been above the local average on seven months of the year, but the mean difference in the year was less than 5-100ths of an inch.

Result of Observations on Temperature and Rain in 1905.

1905.	TEMPERATURE OF THE AIR IN SHADE.				RAINFALL.	
Month.	Highest.	Lowest.	Mean Temp. of Air.	Mean Humidity.	Monthly Fall.	Days of 0.01 inch and above.
	°	°	°	%	Ins.	
January	52·3	22·6	37·9	85	0·92	7
February	53·3	28·1	40·1	87	1·28	17
March	55·5	27·9	43·8	87	1·72	20
April	58·6	27·4	43·9	87	1·94	21
May	67·7	34·2	49·5	80	1·24	12
June	75·5	45·2	57·8	88	2·56	12
July	81·8	48·3	63·8	77	0·35	5
August	71·6	46·3	60·5	78	3·06	14
September	72·5	43·0	56·7	79	1·72	14
October	58·7	30·1	45·2	88	3·86	26
November	53·0	27·4	42·6	88	1·63	15
December	55·5	29·3	39·9	92	1·07	9
Mean Temperature of the year				48·4		
" " June to						
September, inclusive ...				59·7	Total Rain	21·35 inches.
						172 Days.

Earth Temperature.

The highest and lowest readings of thermometers placed below the surface of the soil at depths stated below. These readings show extremes of the year, which for practical purposes are more important than the means.

Readings made at 9 a.m. daily.

BELOW SURFACE.	HIGHEST IN THE YEAR.	DATE. 1905.	LOWEST IN THE YEAR.	DATE. 1905.
	°		°	
One foot	69·0	15th July	34·5	19th January
Two feet	66·1	16th July	36·9	22nd January
Four feet	61·4	31st July	40·2	29th January

The thermometer at 4 feet rose to 55 degrees on 16th June, reached its maximum, 61·4 degrees on 31st July; was down to 50·0 degrees on 26th October, and 43·1 on 31st December.

Sea Surface Temperature at Pier Head, Lowestoft, 1905.

MONTH.	HIGHEST.	MEAN.	MONTH.	HIGHEST.	MEAN.
	°	°		°	°
January	40·0	38·1	July	67·5	66·0
February	40·0	38·6	August	66·2	63·5
March	45·2	41·9	September	61·5	58·9
April	47·0	44·7	October	56·0	51·9
May	57·0	51·5	November	51·0	46·8
June	63·0	59·1	December	43·5	41·0

Bright Unclouded Sunshine, Lowestoft.

*Taken by a Campbell Stokes' Lens-Burning
Sunshine Recorder.*

1905.	TOTAL DURATION.		GREATEST DAILY.			SUNLESS DAYS.
	Hrs.	Mins.	Hrs.	Mins.	Date.	
January	82	3	6	50	29	8
February	87	7	7	48	21	7
March	161	12	10	54	31	4
April	131	1	11	0	3	7
May	254	35	14	6	28	0
June	231	30	14	36	22	4
July	285	45	14	36	2	0
August	195	56	12	30	6	1
September	155	0	11	18	17	1
October	124	41	8	30	19	2
November	77	20	7	12	7	9
December	41	43	6	0	6	16
TOTAL	1827	53	Greatest Daily.		Months. June and July.	59
			14	36		

In comparing these figures with those recorded at other Observatories, due regard should be paid to the form of Sunshine Recorder in use. Higher totals would be obtained by the Jordan Photographic Recorder, which is very generally used.

It is an interesting fact that during the four Summer months there was a daily average of 7 hours 7 mins. of sunshine, and for the whole year of over 5 hours per diem.

Report on the direction of the Wind during 1905.

From Observations taken twice daily, i.e.—9 a.m. and 9 p.m.

1905.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm	Winds of Greatest Force.
January	6	0	3	4	6	4	16	22	1	N.W.—S.E.
February	5	4	5	0	0	3	18	16	5	S.W.—E.
March	2	2	3	4	7	15	19	7	3	W.—S.W.
April	7	4	9	6	6	8	11	8	1	E.
May	6	25	5	0	1	11	6	2	6	S.W.—N.E.
June	2	16	15	3	0	6	7	4	7	N.—W.
July	6	4	10	3	3	11	10	9	6	N.W.
August	8	3	7	3	5	12	16	7	1	S.W.
September	8	7	7	7	1	10	5	10	5	S.W.—S.E.
October	13	8	2	0	1	7	10	20	1	N.
November	2	2	7	5	6	13	9	9	7	S.—S.W.
December	2	2	1	4	3	9	19	13	9	S.W.—S.
	67	77	74	39	39	109	146	127	52	

It will be seen from the above that the prevalent winds were from points between the S.W. and N.W.

Notes on the Weather of 1905.

JANUARY—The year opened with a cold, seasonable day, which, with the exception of an occasional mild period, was maintained throughout the month. Frosts were very frequent, the exposed thermometer on the grass falling to 22 degrees on the 2nd. Sunshine was well in evidence, only 8 sunless days being observed. Rainfall, including snow, was considerably below the average; only 7 wet days were recorded, and the total fall was less than an inch. Mean temperature for the month about the average.

FEBRUARY—This month was considerably milder with frequent light falls of rain, and during the early part a sprinkling of snow. There was, however, plenty of intermittent sunshine, only 7 sunless days being observed, the total duration averaging over 3 hours per day. The exposed thermometer on the grass fell below freezing point on 12 occasions, but no severe frosts occurred. Mean temperature for the month nearly 2 degrees above the average.

MARCH—The weather continued mild and changeable, but with plenty of sunshine, the sunless days numbering only 4, and a daily average of over 5 hours. Occasional frosts were recorded, but not severe. Two fairly sharp thunderstorms occurred during the month; a rather unusual occurrence. There were frequent light rains. Mean temperature for the month over 3 degrees above the average.

APRIL—The mild weather continued until the 8th, when there was a short spell of easterly winds; it is noteworthy that during this period the exposed thermometer on the grass did not once fall below freezing point, and the shade temperatures were remarkably equable. After the 22nd, the wind again shifted

to the west, accompanied by much greater extremes of temperature, rising to $58\frac{1}{2}$ degrees on the 28th. Light rains, evenly distributed throughout the month, were observed, the total fall being less than 2 inches. There were again only 7 sunless days; a splendid record of 11 hours was taken on the 3rd. Mean temperature for the month within 1 degree of the average.

MAY—On the whole a beautifully fine, seasonable month, with not a single sunless day, maintaining a daily average of over 8 hours of unclouded sunshine. No frost whatever was recorded, and on the 10th the day temperature rose to $67\frac{1}{2}$ degrees. It is significant that these pleasant conditions were accompanied by a short period of easterly winds. Mean temperature for the month exactly the average.

JUNE—A short, rainy period set in from the 3rd to the 7th, and just over an inch of water was taken for the 24 hours of the 5th. With the exception of two occasions, when sharp thunderstorms broke over the town, the remainder of the month was delightfully warm and bright, with an abundance of bright unclouded sunshine. The temperature on the 27th rose to 75 degrees in the shade, and the exposed thermometer did not once fall below 40 degrees. Mean temperature for the month over 2 degrees above the average.

JULY—An extraordinary month, with a daily average of nearly $9\frac{1}{2}$ hours sunshine, not one day being dull and with a rainfall of less than $\frac{1}{2}$ -inch. Although the day temperature rose to 81 degrees on one occasion, a delightfully refreshing breeze blew from the N.W., counteracting the excessive heat. The temperature of the sea rose to over 67 degrees, thus enabling the most delicate to enjoy the exhilarating pleasures of sea bathing. Mean temperature for the month over 4 degrees above the average.

AUGUST—These delightful conditions continued until the 25th, when a short wet period set in, preceded by a thunderstorm, but in spite of this there was only one sunless day, and the temperatures remained seasonably high. Mean temperature for the month one degree above the average.

SEPTEMBER—This month was again fine and seasonable with an extraordinary duration of sunshine and only just over $1\frac{1}{2}$ inches of rainfall. The temperatures continued seasonably high and the exposed thermometer on the grass did not once fall below 40 degrees. Mean temperature for the month within one-tenth degree of the average.

OCTOBER—A mild but rather wet month, rain fell on 26 days, the total fall being nearly 4 inches. There was, however, a daily average of over 4 hours of unclouded sunshine and only one sunless day. This was by far the wettest month of the year. Mean temperature for the month 4 degrees below the average.

NOVEMBER—This month was cool, fine, and breezy, with fairly frequent frosts though not severe. A fine specimen of the Aurora Borealis was observed on the evening on the 15th, a somewhat unusual occurrence. An abnormally low reading of the barometer was observed on the 26th, viz.: 28.93. The rainfall was light, only $1\frac{1}{2}$ inches being taken. Mean temperature for the month $1\frac{1}{2}$ degrees below the average.

DECEMBER—A rather dull but fine month with seasonable temperatures and occasional light fogs. A light fall of snow occurred on the 30th. The total fall of rain, including snow, was only 1 inch. The prevalent wind was from the west. The year closed with a beautifully fine, breezy day with 4 hours of bright sunshine and frost at morning and night. Mean temperature for the month within $\frac{1}{2}$ -degree of the average.

The mean temperature for the year was half degree above the average.

The local averages are in all cases taken from Mr. S. H. MILLER'S "Reductions of Meteorological Observations made at Lowestoft from 1879 to 1898."

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